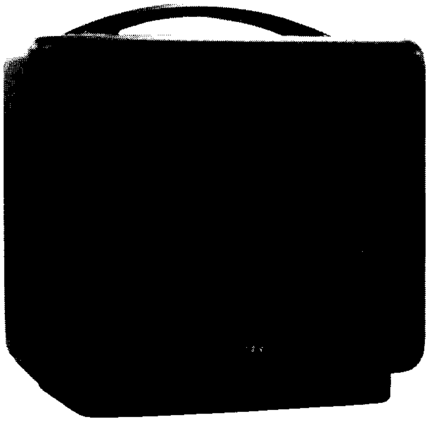
KV-M1430D/M1431D
RM-694

SERVICE MANUAL

AEP Model
KV-M1430D
Chassis No. SCC-D85H-A
KV-M1431D
Chassis No. SCC-D85J-A



BE-2A CHASSIS

MODELS OF THE SAME SERIES	
KV-M1430D/M1431D	KV-M1620D
KV-M1920D/M1921D	KV-M1420D
KV-M2140D/M2141D	

SPECIFICATIONS

〔KV-M1430D/M1431D〕

Television system	B/G/H
Color system	PAL/SECAM
Channel coverage	VHF : E2-E12 UHF : E21-E69 CABLE TV: S01-S20 HYPER: S21-S41
Picture tube	Black Trinitron tube Approx. 36.8 cm (14 inches) (Approx.33.7cm picture measured diagonally) 90° degree deflection
Inputs	⊖- 21-pin connector : CENELEC standard RGB input V⊖-A Audio/Video input jacks phono jacks ⊖- S-Video input jack
Outputs	Headphones jack : minijack 21-pin connector : TV output
Sound output	5 W (Music)
Power consumption	47 Wh (KV-M1430D) 48 Wh (KV-M1431D)
Dimensions	Approx. 366x363x409 mm (w/h/d)
Weight	Approx. 10.5 kg

〔RM-694〕

Remote control system	infrared control
Power requirements	3V dc 2 batteries IEC designation R6 (size AA)
Dimensions	Approx. 55×18×185mm (w/h/d)
Weight	Approx. 100g including batteries
Supplied accessories	RM-694 Remote Commander (1) IEC designation R6 batteries (2)

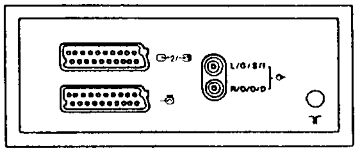
Design and specifications are subject to change without notice.

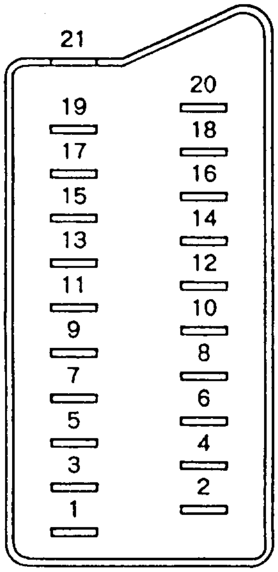
MICROFILM

TRINITRON® COLOR TV

SONY®

21 pin connector (→◌, ◌↔ 2/→Ⓢ)





Pin No.	1	2	Signal	Signal level
1	○	○	Audio output B (right)	Standard level: 0.5Vrms Output impedance: Less than 1kohm*
2	○	○	Audio input B (right)	Standard level: 0.5Vrms Input impedance: More than 10kohms*
3	○	○	Audio output A (left)	Standard level: 0.5Vrms Output impedance: Less than 1kohm*
4	○	○	Ground (audio)	
5	○	○	Ground (blue)	
6	○	○	Audio input A (left)	Standard level: 0.5Vrms Input impedance: More than 10kohms*
7	○	●	Blue input	0.7V ± 3dB, 75ohms, positive
8	○	○	Function select (AV control)	High state (9.5 – 12V): Part mode Low state (0 – 2V): TV mode Input impedance: More than 10kohms Input capacitance: Less than 2 nF
9	○	○	Ground (green)	
10	○	○	Open	
11	○	●	Green	Green signal: 0.7V ± 3dB, 75ohms, positive
12	○	○	Open	
13	○	○	Ground (red)	
14	○	○	Ground (branking)	
15	○	–	Red input	0.7V ± 3dB, 75ohms, positive
	–	○	(S signal) croma input	0.3V ± 3dB, 75ohms, positive
16	○	●	Blanking input (Ys signal)	High state (1 – 3V) Low state (0 – 0.4V) Input impedance: 75ohms
17	○	○	Ground (video output)	
18	○	○	Ground (video input)	
19	○	○	Video output	1V ± 3dB, 75ohms, positive Sync: 0.3V (– 3, +10dB)
20	○	–	Video input	1V ± 3dB, 75ohms, positive Sync: 0.3V (– 3, +10dB)
	–	○	Video Input/Y (S signal)	1V ± 3dB, 75ohms, positive Sync: 0.3V (– 3, +10dB)
21	○	○	Common ground (plug, shield)	

○ connected ● unconnected (open) * at 20Hz – 20kHz

4 pin connector (→Ⓢ)

Pin No.	Signal	Signal level
1	Ground	
2	Ground	
3	Y (S signal) input	1V ± 3dB, 75ohms, positive Sync: 0.3V $^{+3}_{-10}$ dB
4	C (S signal) input	0.3V ± 3dB, 75ohms, positive

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CAUTION

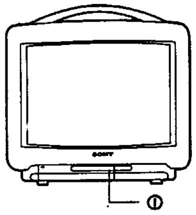
SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

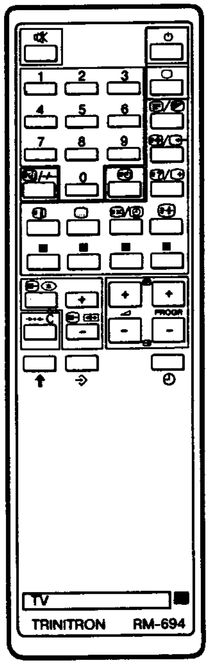
SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SECTION 1
GENERAL

1-1. SWITCHING ON/OFF





After you have completed the basic preparation your TV is ready to be connected to the mains power supply(220V AC, 50Hz).

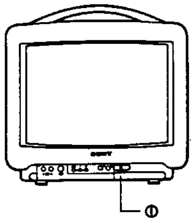
How to turn the TV on

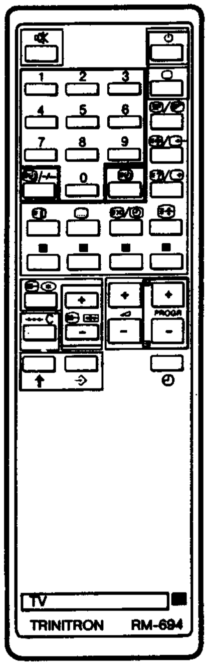
Action	Result
Press ⌽ on the TV.	The TV will turn on. **Note:** If the screen remains blank, the TV may be in the standby mode. Press ▢ on the commander to switch it on.

How to turn the TV off

A Temporarily	
Press ⏻ to enter standby mode.	The TV will be in standby. To return to the TV mode press ▢
B Completely	
Press ⌽ on the TV.	The TV will turn off.

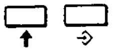
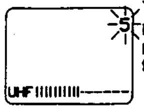
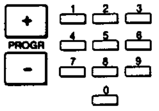
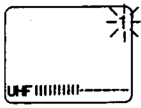
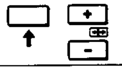
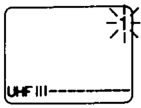
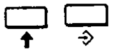
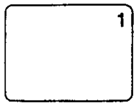
1-2. PRESETTING

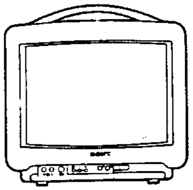


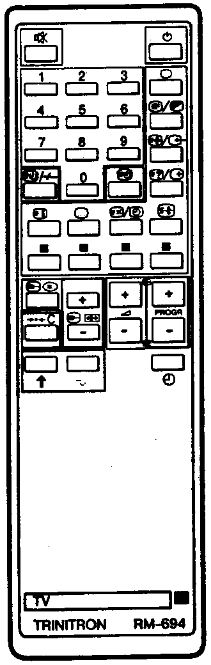


After having installed the TV, you now need to preset TV channels. Up to 60 programme positions are at your disposal. For channel presetting use the buttons with the red symbols on the Remote Commander.

Automatic presetting of channels

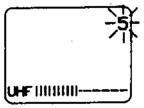
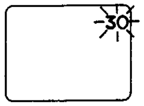
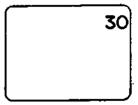
Action	Result
1 Press both the ⬆ SHIFT button and the ➩ PRESET button simultaneously. 	 You are now in the preset mode. The programme number flashes.
2 Press either the number buttons or PROGR +/– to select the programme number on which you want to preset the channel.  **Note:** in case of two digit numbers, first press –/––, then the two numbers.	 The selected programme number will be indicated.
3 Press both the ⬆ SHIFT button and the ⊞ + or – button repeatedly, until the desired channel is tuned in. 	 The scale with the frequency band changes.
4 Repeat steps 3 and 4 for all other channels.	
5 Press both the ⬆ SHIFT and the ➩ PRESET buttons simultaneously to store the channels. 	 All channels are now stored. The programme number stops flashing.





How to skip programme positions

Since you have 60 programmes at your disposal, you may want to skip vacant programme positions, that means that they are skipped when you press the PROGR +/– buttons.

Action	Result
1 Press both the ↑ SHIFT button and the ⇾ PRESET button simultaneously.	 You are now in preset mode, the programme position flashes.
2 Use PROGR + or – to select the programme position you want to skip.	 The selected programme position appears.
3 Press both the ↑ SHIFT button and the button C simultaneously.	
4 Press both the↑ SHIFT button and the ⇾ PRESET button simultaneously.	 The programme position is now skipped. You are back in TV mode.

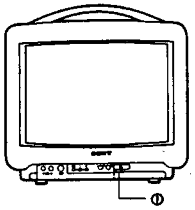
How to fine tune a channel manually

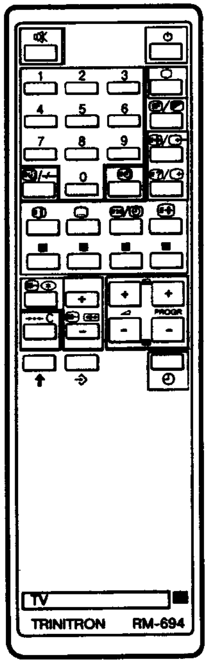
If the reception of a stored channel is not satisfactory, you can fine tune the channel manually.

Action	Result
Press both the ↑ SHIFT button and the ⊞ + or – button simultaneously intil the reception is good.	The channel is now fine tuned.

Note: By pressing the respective programme number the automatic fine tuning will be restored.

1-3. TV OPERATION





This section shows you how to use the convenient features available for operating the TV.

How to select programmes

Action	Result
Press PROGR +/– or the respective number button on the Remote Commander. In case of two digit numbers first press –/–– and then the two respective number buttons.	The selected programme is displayed.
On the set: Press the + or – button for programme selection.	

How to adjust the volume

Action	Result
Press ◿ + or –.	The ◿ symbol and the level indicator are displayed on the screen. The volume is adjusted accordingly.
Muting of the sound	
Press button 🔇	The sound is switched off. Press the button again to restore the sound.
On the set: Press button ⊜ repeatedly in order to select the desired item, then adjust with the + or – button.	

How to adjust the picture

Action	Result
1 Press button ⊜ repeatedly, until the desired item is displayed (◑ contrast, ◕ colour intensity, ☼ brightness).	The symbol and the respective bar display are displayed.
2 Press button + or –.	The selected picture item is adjusted accordingly.
Press button ⊜ repeatedly in order to select the desired item, then adjust with the + or – button.	

To return to factory-set levels
Press the →•← button.

Other functions

On-screen display
Press the ⊖ button to display the programme number on the screen and press the button a second time to make it disappear.

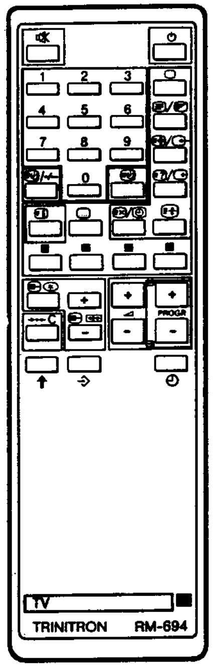
Selecting the signal of a connected device
Press the ⊖ button to receive the signal of the device (e.g. a VTR) connected at the V⊖-A connectors (front of the set) or the 21-pin connector (rear of the set). Press the ▢ button to return to the TV mode.

Time function
Press ⊙ to request the time. Press again to cancel the request (only if teletext is broadcast).

Sleep Timer
Press the ⊘ button repeatedly until the required time period is displayed on the screen (30, 60, 90 minutes or 0 for cancelling the request). In this way you can select the time period after which the set switches itself automatically into standby-mode.

1-4. TELETEXT OPERATION (KV-M1431D only)

TV stations broadcast teletext programmes via the TV channels. To receive teletext programmes, use the buttons indicated in green on the Remote Commander.



How to view the teletext

	Action	Result
1	Select the channel which carries the teletext service you wish to view.	The channel changes on the screen.
2	Press ⊜/◩.	The teletext service appears.
3	Input three digits for the page number using the number buttons. **Note** If you make a mistake, type in any three digits, then re-enter the correct page number.	The numbers are entered on the screen. The requested page will appear in a few seconds.

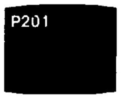
To return to the TV mode:
Press ○.

To change the teletext channels:
First press ○ to return to TV mode, then repeat steps 1 to 3.

Note
If the signal of the TV channel is weak, teletext errors may often occur.
The ○ button has no function on this set.

How to use the Advanced Features of Teletext

How	Action	Result (on-screen display)
Request the index page.	Press ⊡ (INDEX).	The index page appears.
Access the next or preceding page.	Press ⊕ (PAGE +) or ⊖ (PAGE –).	The next or preceeding page appears.

How to	Action	Result
Superimpose the teletext display on the TV programme.	Press ⊜/◩ once if you are in text mode, or press ⊜/◩ twice if in TV mode. To return to the normal teletext display press ⊜/◩ again.	The teletext displays are superimposed on the TV programmes.
Prevent a teletext page from being updated or changed.	Press ⊞ (HOLD). To resume normal teletext reception, press ⊜/◩ (TEXT/MIX).	world weather The HOLD symbol ⊞ appears on the screen and the chosen sub-page is held until you cancel.
Enlarge the teletext display.	Press ⊙ once to enlarge the upper half. Press twice to enlarge the lower half. Press again to restore the normal display.	world weather The upper half is enlarged.
Reveal concealed information (e.g. answers to a quiz).	Press ⊘ (REVEAL). Press again to conceal the information.	The information is revealed.
Watch the TV programme while waiting for a requested page to be displayed.	1. Request a new page.	The numbers are entered.
	2. Press ⊟ (TEXT CL).	The TV programme is displayed, and the requested page number and other teletext data appear at the top of the screen.
	3. When the requested page has been captured, the page number remains and the other data disappears.	
	4. Press ⊜ to view this page	The requested page is displayed.

Some of the features may not be available depending on the Teletext service.

How to use the FASTEXT Feature

FASTEXT feature allows you to access pages quickly with one key operation.
When a FASTEXT page is broadcast, a colour coded menu appears at the bottom of the screen. Each coloured prompt corresponds to the four coloured buttons of your Remote Commander.

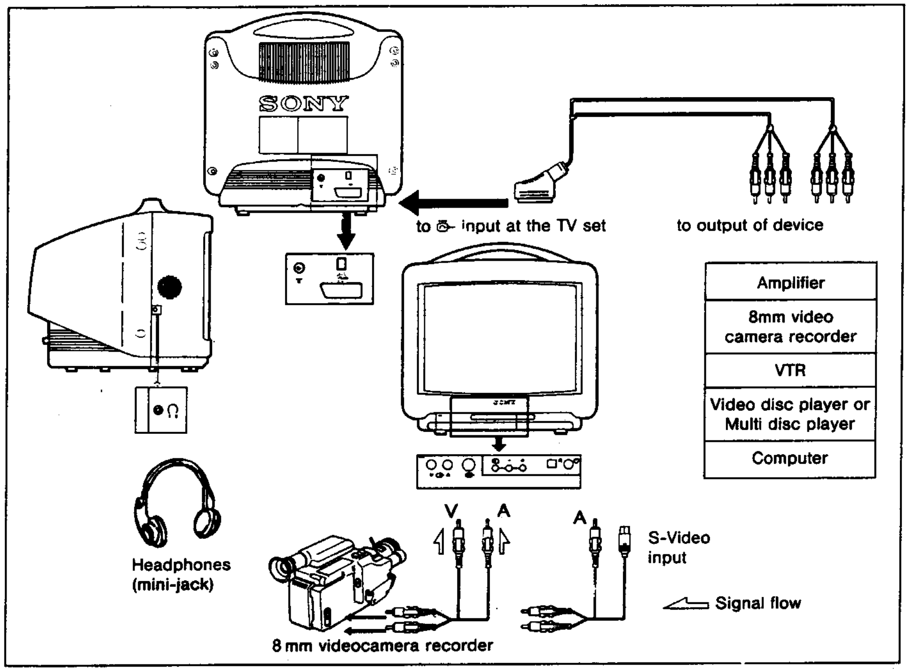
Operation

Action	Result
Press one of the coloured buttons which corresponds to the coloured prompt on the teletext.	The selected teletext page appears.

Note
Correct FASTEXT operation depends on the necessary signals sent from the TV station.
Some TV stations may not send signals for the FASTEXT.

1-5. OPTIONAL CONNECTIONS/OPERATIONS

How to connect additional Audio/video equipment


SONY
to ⊖- input at the TV set
to output of device
Amplifier
8mm video camera recorder
VTR
Video disc player or Multi disc player
Computer
Headphones (mini-jack)
V
A
A
S-Video input
Signal flow
8 mm videocamera recorder

How to view the Video input signal

Press button ⊖- repeatedly in order to select the desired input mode (⊖- for Audio/video signals from 21-pin EURO connector ⊖- or from the video/audio connectors V ⊖- A on the front; ⊜- for S-video signals from the S-video (4-pin DIN) connectors on the front). Press button ○ to return to TV mode.

On the set:
Press button ⊟ once, the symbols ○, ⊖-, ⊜- will appear on the screen, then press the + button to select the desired video input mode. Press ⊟ and + buttons again to return to TV-mode.

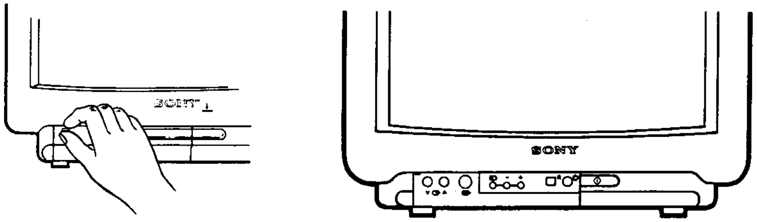
S-video input (Y/C input)
Video signals may be separated into Y (luminance or brightness) and C (chrominance) signals. Separating the Y and C signals prevents them from interfering with one another, and therefore improves picture quality (especially luminance). This TV is equipped with one S-video input jack through which these separated signals can be input directly.

Notes
- When you have Audio/video equipment connected to both the A/V connectors and the 21-pin terminal, make sure that not both are switched on at the same time, otherwise the picture could be incomplete.
- In case of sound or picture distortions move the VTR away from the TV set.

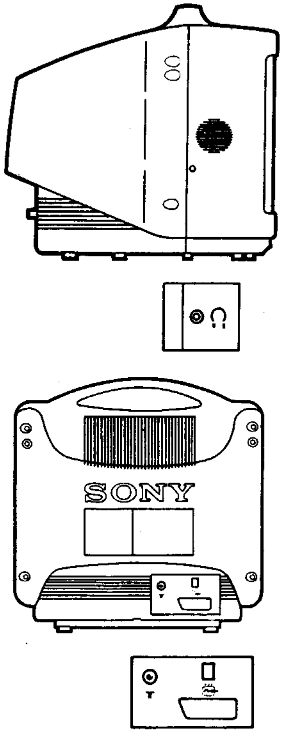
1-6. ADDITIONAL INFORMATION

Parts Identification

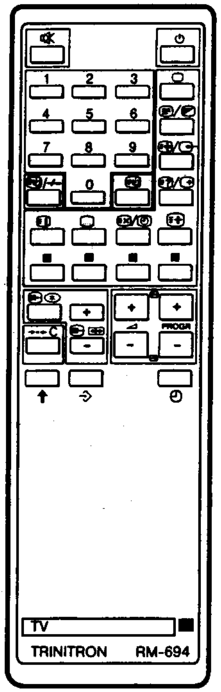
TV Set – Front



TV Set – Rear



Remote Commander


1
2
3
4
5
6
7
8
9
0
PROGR
TV
TRINITRON
RM-694

This section briefly describes the buttons and controls on the TV set and on the Remote Commander. For more information.

TV Set

Symbol	Function
⦶	Main power switch
⏻	Standby indicator
+/–	Programme selector
⊟ +/–	Sound and picture adjustment/input selection
🎧	Headphone jack (mini-jack)
V ⊖-	Video input jack
A ⊖-	Audio input jack
S⊖-	S-video input jack
⊜-	21-pin connector (rear of set)
╥	Aerial socket (rear of set)

Remote Commander

Symbol	Function
⏻	Button for switching the TV set into standby mode
▭	Used to return to TV-mode from standby and video input modes
1-9, 0, –/––	Number buttons – in case of two digit numbers first press button –/–– and then two number buttons
PROGR +/–	Programme scanning buttons
⇨ and ⬆	Preset mode on/off buttons
⬆	Functions only in combination with other buttons
⬆ and C	Button for clearing a programme position (in preset mode)
⬆ and ⇔ +/–	Buttons for manual fine tuning of a channel/presetting
🔇	Mute button
⊟	Select button for picture adjustment item
+/–	Buttons for adjusting picture items
→·←	Button for resetting the picture adjustment items to standard
◺ +/–	Buttons for adjusting the volume
🕒	Button for activating the sleep timer
⊕	On/off button for onscreen display
◎	Time feature (only for KV-M1431D)
⍰ ⊟/◩ ⊠ ⊜ ⊡ ⊞	Teletext buttons (only for KV-M1431D)
■ ■ ■ ■ ☐ ☐ ☐ ☐	FASTEXT Buttons
⊖-	Button for selecting the video input mode

Note:
Buttons not referred to in this index have no function.

Troubleshooting

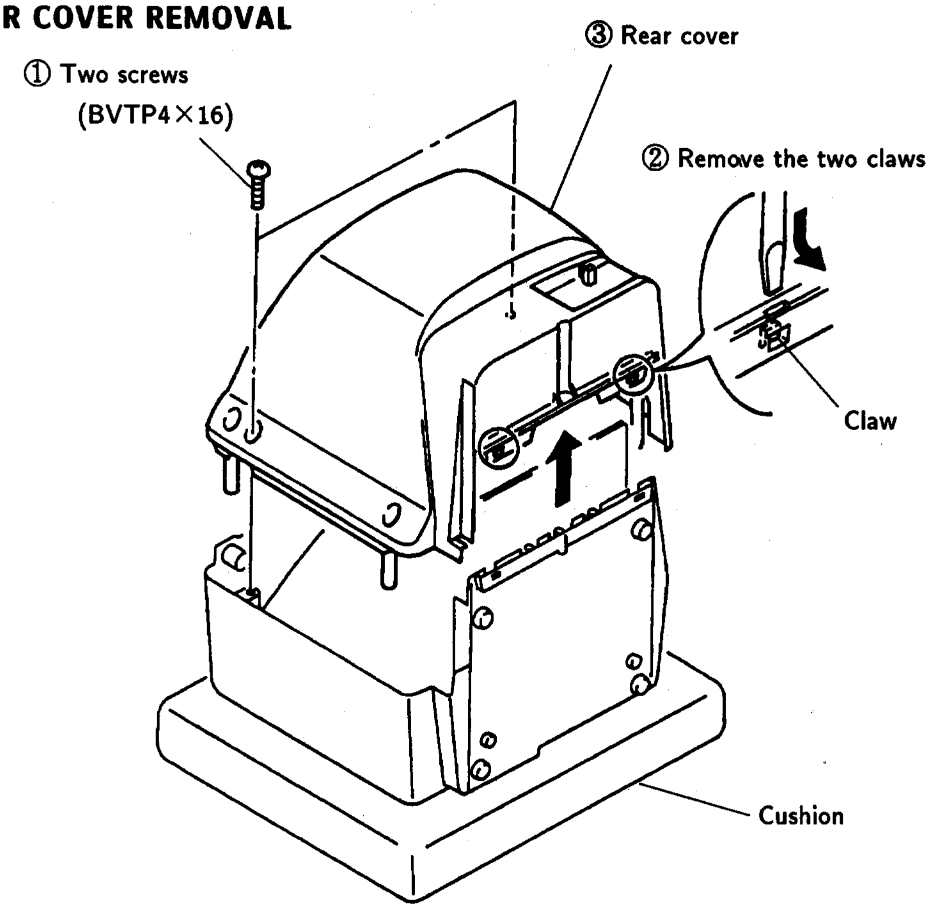
Here are some simple solutions to the problems which affect the picture and sound.

Problem	Solution
No picture (screen is dark), no sound	• Plug the TV in. • Press ⦶ on the TV. (If ⏻ indicator is on, press ▭ or the programme number on the Remote Commander). • Check the aerial connection. • Check if the selected video source is on. • Turn the TV off for 3 or 4 seconds and then turn it on again using ⦶.
Poor or no picture (screen is dark), but sound good	• Adjust ☼, ◑, ● by pressing the + button after selecting with the ⊟ button.
Good picture but no sound	• Press ◺ +. • Disconnect the headphones. • If 🔇 is displayed on the screen, press 🔇.
No colour for colour programmes	• Adjust ● with the + button after selecting with the ⊟ button. • Press →·← on the Remote Commander.
Remote Commander does not function	• REPLACE THE BATTERIES

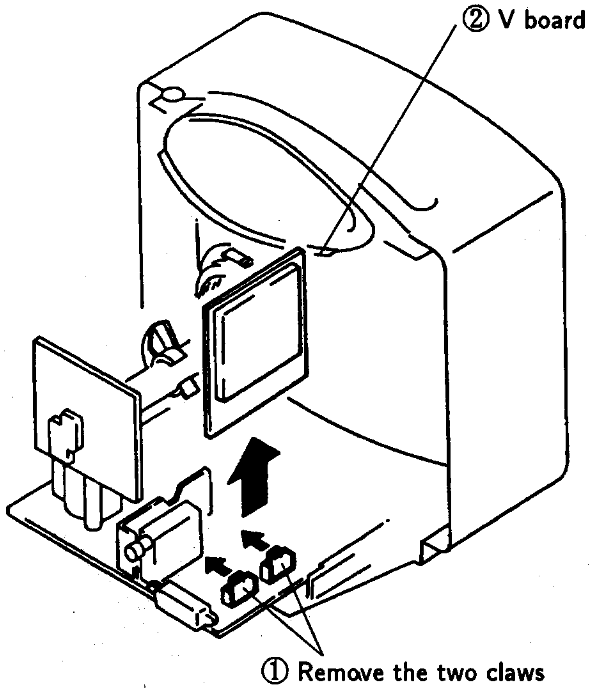
If you continue to have these problems, have your TV serviced by qualified personnel. Never open the casing yourself.

SECTION 2
DISASSEMBLY

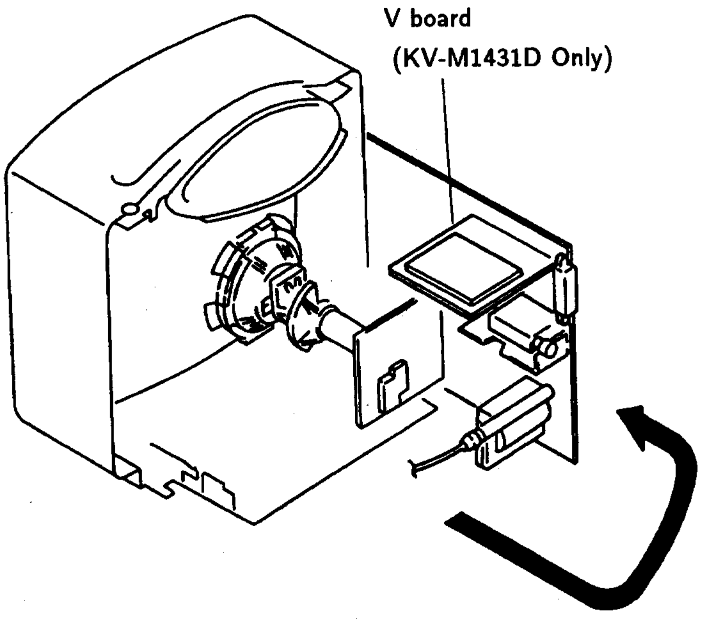
2-1. REAR COVER REMOVAL


③ Rear cover
① Two screws
(BVTP4×16)
② Remove the two claws
Claw
Cushion

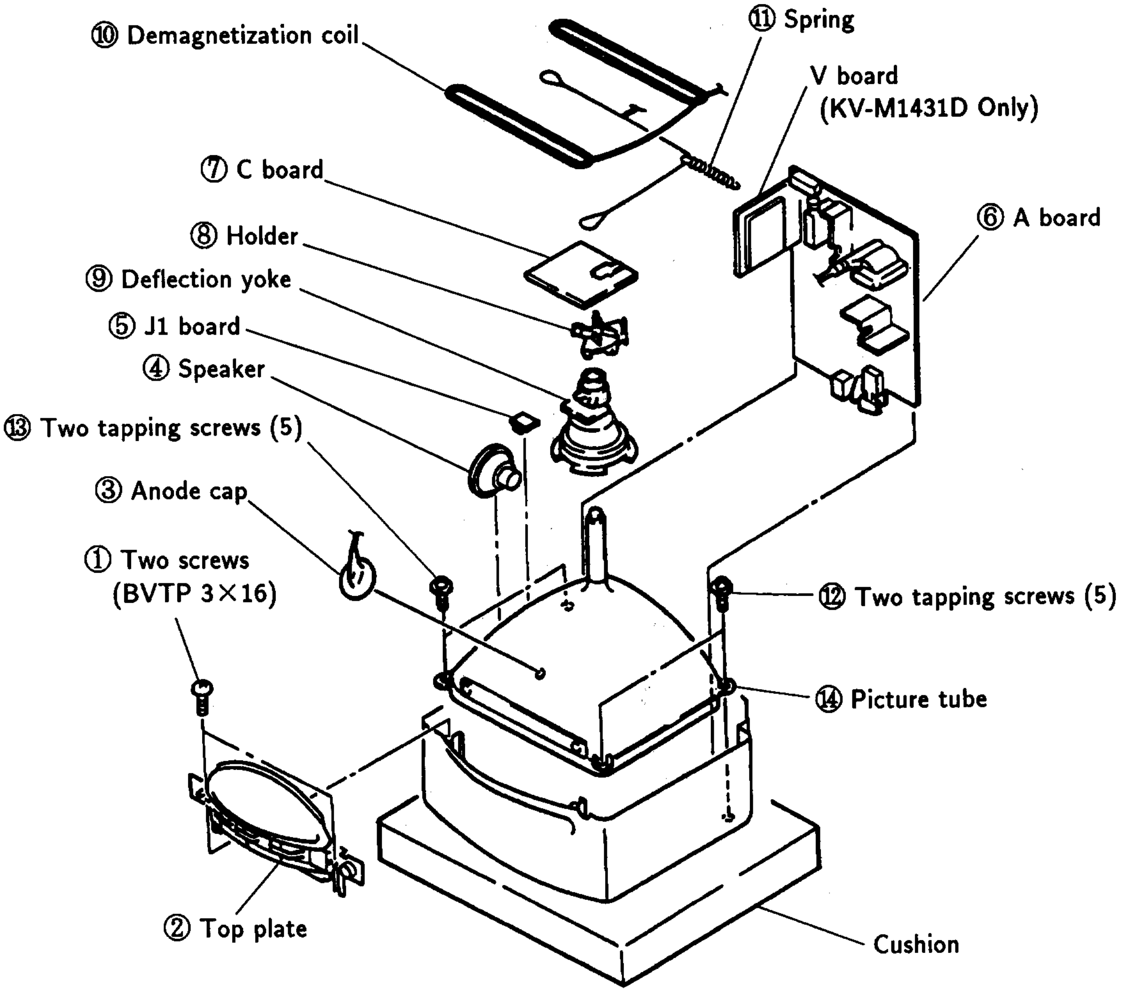
2-2. V BOARD REMOVAL (KV-M1431D ONLY)


② V board
① Remove the two claws

2-3. SERVICE POSITION


V board
(KV-M1431D Only)

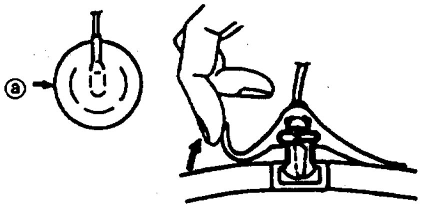
2-4. PICTURE TUBE REMOVAL


⑩ Demagnetization coil
⑪ Spring
V board (KV-M1431D Only)
⑦ C board
⑥ A board
⑧ Holder
⑨ Deflection yoke
⑤ J1 board
④ Speaker
⑬ Two tapping screws (5)
③ Anode cap
① Two screws (BVTP 3×16)
⑫ Two tapping screws (5)
⑭ Picture tube
② Top plate
Cushion

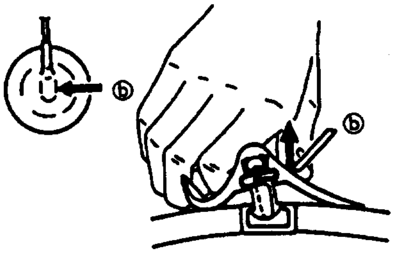
• REMOVAL OF ANODE-CAP

NOTE : Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT chield or carbon painted on the CRT, after removing the anode.

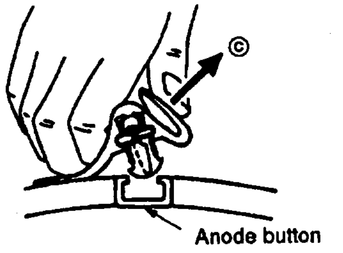
• REMOVING PROCEDURES



① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ.



② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ.


ⓒ
Anode button

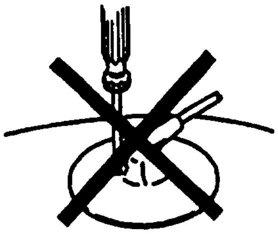
③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ⓒ.

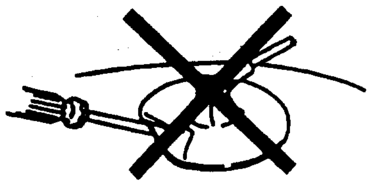
• HOW TO HANDLE AN ANODE-CAP

① Don't hurt the surface of anode-caps with sharp shaped material!

② Don't press the rubber hardly not to hurt inside of anode-caps!
A material fitting called as shatter-hook terminal is built in the rubber.

③ Don't turn the foot of rubber over hardly!
The shatter-hook terminal will stick out or hurt the rubber.





SECTION 3
SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

The controls and switch below should be set as follows unless otherwise noted :

◑ CONTRASTcontrol········· 80%(or Normal by commander)
☼ BRIGHTNESS control····· 50%

Perform the adjustments in order as follows:

1. Beam Landing
2. Convergence
3. Focus
4. Screen (G 2) and White Balance

Note: Test Equipment Required.

1. Color bar/Pattern Generator
2. Degausser
3. DC Power Supply
4. Digital multimeter
5. Oscilloscope

Preparation:

- Set the side of the unit with the PICTUE TUBE so that it faces east or west in order to reduce the influence of external magnetic force.
- Turn the power switch for the unit ON and erase the magnetic force using a degausser..

3-1. BEAM LANDING

Demagnetize with a degausser

1. Input a raster signal with the pattern generator.
   CONTRAST } normal
   BRIGHTNESS }
2. Turn the raster signal of the pattern generator to red.
3. Move the deflection yoke backward, and adjust with the purity control so that red is in the center and blue and green are at the sides evenly. (Fig.3-1 - 3-3)
4. Move the deflection yoke forward, and adjust so that the entire screen becomes red. (Fig.3-1)
5. Switch over the raster signal to blue and blue and confirm the condition.
6. When the position of the deflection yoke is determined,tighten it with a deflection yoke mounting screw.
7. When landing at the corner is not right, adjust by using the disk magnets. (Fig.3-4)

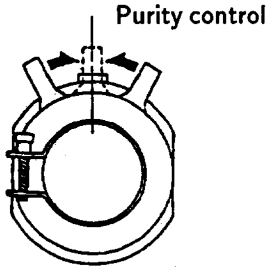

Purity control

Fig.3-2

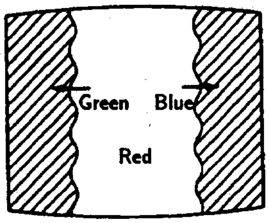

Green
Blue
Red

Fig.3-3

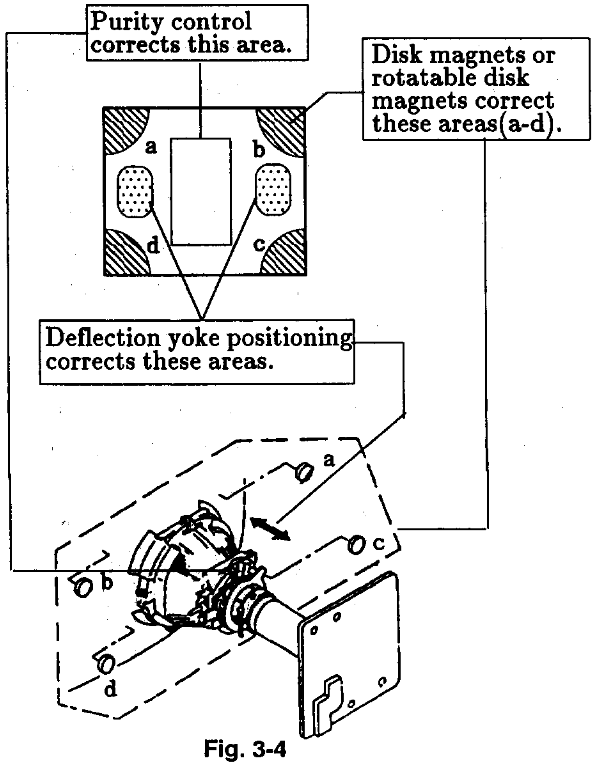

Purity control corrects this area.
Disk magnets or rotatable disk magnets correct these areas(a-d).
a
b
c
d
Deflection yoke positioning corrects these areas.
a
b
c
d

Fig. 3-4

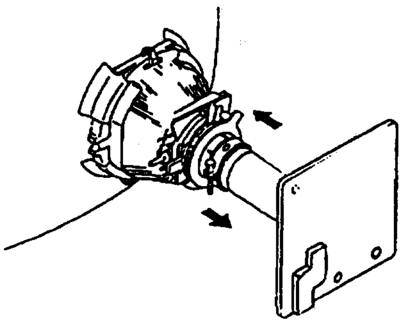


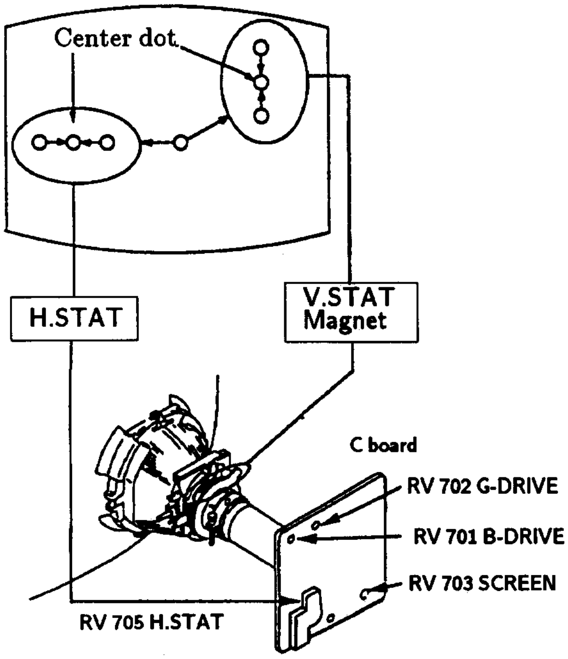
Fig.3-1

3-2. CONVERGENCE

Preparation:

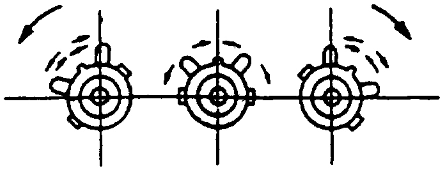
- Before starting, perform FOCUS, H.SIZE, and V. SIZE adjustments.
- Set BRIGHTNESS control to minimum.
- Feed in the dot pattern.

(1) Horizontal and Vertical Static Convergence

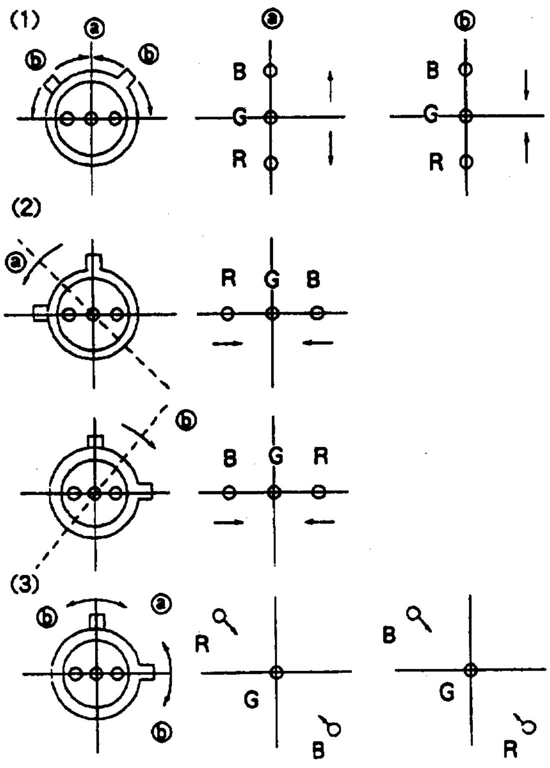

Center dot
H.STAT
V.STAT Magnet
C board
RV 702 G-DRIVE
RV 701 B-DRIVE
RV 703 SCREEN
RV 705 H.STAT

1. Adjust H.STAT VR to converge red, green and blue dots the in center of the screen.(Horizontal movement)
2. Adjust V. STAT magnet to converge red, green and blue dots in the center of the screen. (Vertical movement)
3. If the red, green and blue dots do not converge on the center of screen with H.STAT VR, perform horizontal convergence adjustment using H.STAT VR and V.STAT magnet as shown below. (In this case, H.STAT VR and V.STAT magnet effect each other.)

- Tilt the V.STAT magnet and adjust static convergence to open or close the V.STAT magnet.



4.When the V.STAT magnet is moved in the direction of arrow ⓐ and ⓑ, red, green and blue dots move as shown below.

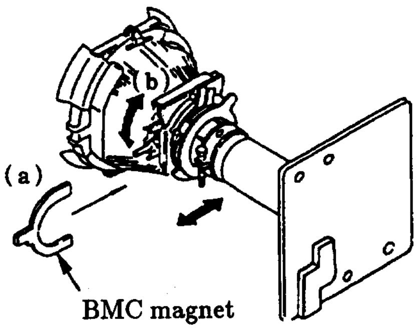

(1)
ⓐ
ⓑ
ⓑ
B
G
R
ⓐ
B
G
R
ⓑ
(2)
ⓐ
R G B
ⓑ
B G R
(3)
ⓑ
ⓐ
ⓑ
R
G
B
B
G
R

If the red and blue dot do not converge with green dots, perform following steps.

Move BMC magnet (a) to correct insufficient H.static convergence.

Rotate BMC magnet (b) to correct insufficient V.static convergence.

In either case, repeat Beam Landing Adjustment.

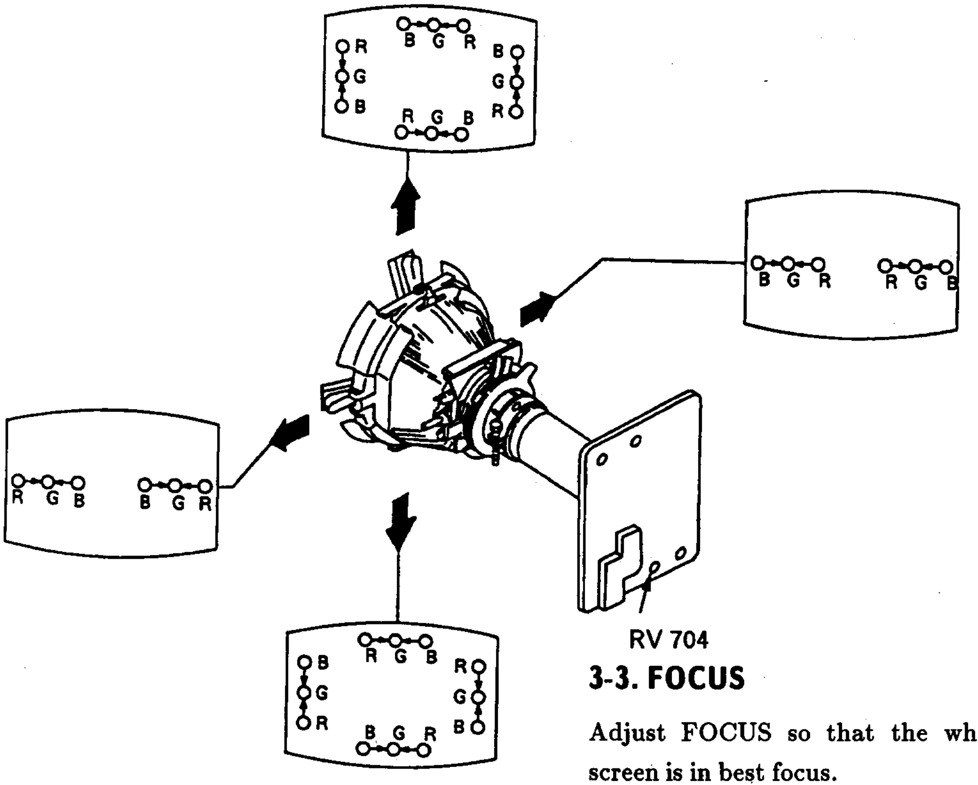

(b)
(a)
BMC magnet

(2)Dynamic Convergence Adjustment

Preparation:

- Before starting perform Horizontal and Vertical static convergence Adjustment.

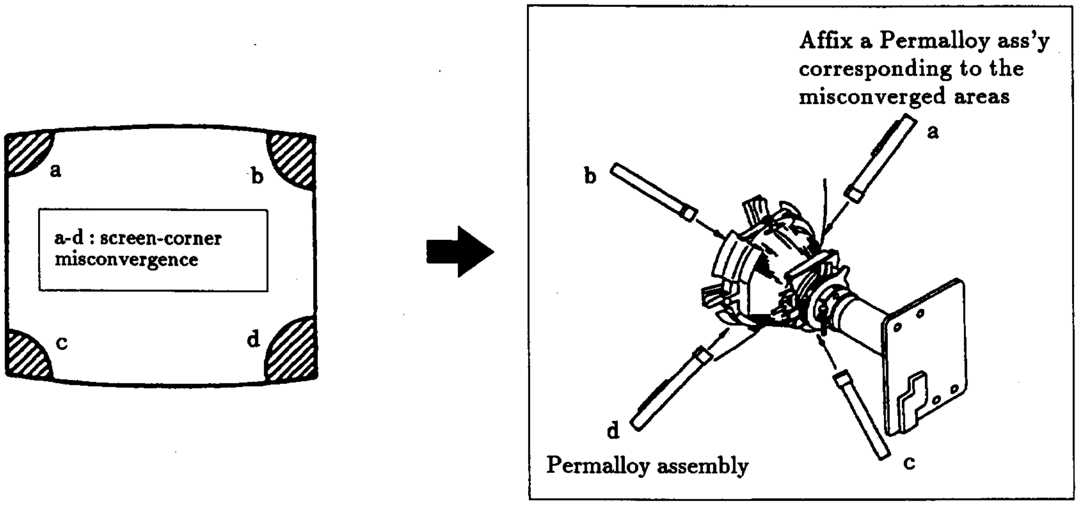
1. Slightly loosen deflection yoke screw.
2. Remove deflection yoke spacers.
3. Move the deflection yoke for best convergence as shown below.
4. Tighten the deflection yoke screw.
5. Install the deflection yoke spacers.


B G R
R G B
R G B
B G R
B G R
R G B
R G B
B G R
R G B
B G R
B G R
R G B
RV 704

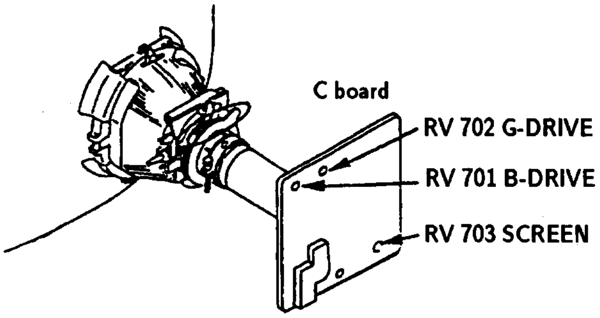
3-3. FOCUS

Adjust FOCUS so that the whole screen is in best focus.

(3) Screen-corner Convergence


a
b
c
d
a-d : screen-corner misconvergence
Affix a Permalloy ass'y corresponding to the misconverged areas
a
b
c
d
Permalloy assembly

3-4. SCREEN (G 2) and WHITE BALANCE



Screen (G 2) Setting

1. Input dot signal from the pattern generator.
2. Set the picture BRIGHTNESS control to minimum level.
3. Apply 140 V DC to the cathodes of R,G and B from an external power power source.
4. While watching the picture, adjust the G 2 volume (RV703) immediately before fly-back line disappears.

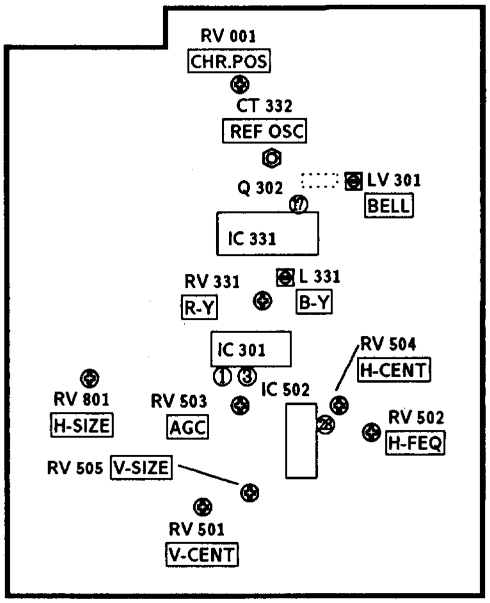
White Balance Adjustment

1. Input all-white signal from the pattern generator.
2. Adjust the BRIGHTNESS and COLOR controls to the standard level.
3. Adjust the following using RV 701 (B DRIVE) and RV 702 (G DRIVE)

In the following adjustments, the CONTRAST, COLOR and BRIGHTNESS controls are set to normal unless otherwise specified.

SECTION 4
CIRCUIT ADJUSTMENTS

4-1. A BOARD ADJUSTMENTS

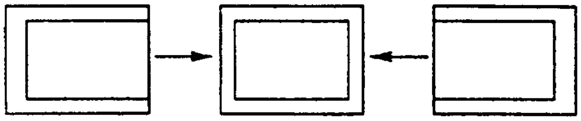

RV 001
CHR.POS
CT 332
REF OSC
Q 302
LV 301
BELL
⑰
IC 331
RV 331
R-Y
L 331
B-Y
IC 301
① ③
RV 504
H-CENT
IC 502
RV 801
H-SIZE
RV 503
AGC
㉘
RV 502
H-FEQ
RV 505
V-SIZE
RV 501
V-CENT

A BOARD
-Component side-

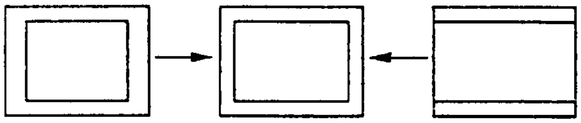
TU AGC Adjustment (RV 503)

1. Tune in air signal.
2. Adjust AGC VR (RV 503) so that snow-noise and cross-modulation just disappear from the picture.

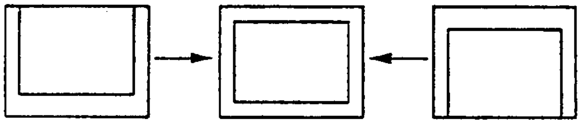
RV 504 H.CENT (HORIZONTAL CENTER)



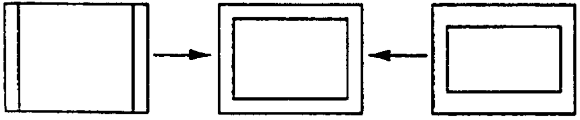
RV 801 H.SIZE (HORIZONTAL SIZE)



RV 501 V.CENT (VERTICAL CENTER)

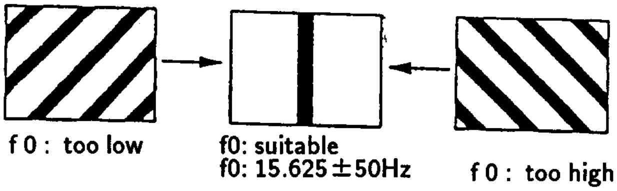


RV 505 V.SIZE (VERTICAL SIZE)



H.FREQ Adjustment (RV 502)

1. Input a PAL COLOR BAR signal, then connect an electrolytic capacitor (100 μ/16 V) between pin㉘ and GND of IC 502.
2. Adjust RV 502 (H.FREQ) to stop scrolling of the picture in the horizontal direction.
3. After adjustment, remove the electrolytic capacitor.

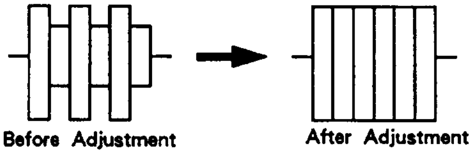

f 0 : too low
f0: suitable
f0: 15.625±50Hz
f 0 : too high

REF OSC 8.8 MHz Adjustment (CT 332)

1. Input a PAL COLOR BAR pattern.
2. Short circuit between pin⑰ of IC 331 and ground.
3. Adjust CT 332 to obtain color synchronizetion.
4. Remove the jumper wire from IC 331.

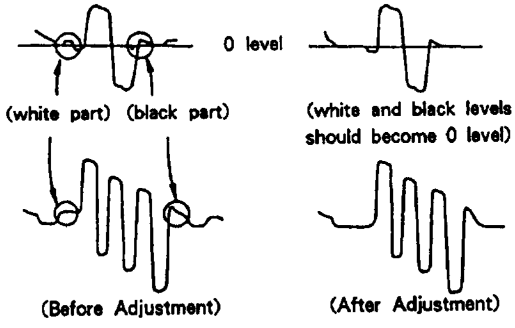
BELL FILTER Adjustment (LV 301)

1. Input a SECAM COLOR BAR pattern.
2. Connect an oscilloscope to rhe Q 302 emitter.
3. Adhust LV 301 so that waveform becomes flat.


Before Adjustment
After Adjustment

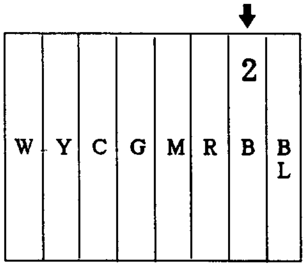
SECAM DISCRI Adjustment (RV 331 R-Y L 331 B-Y)

1. Input a SECAM COLOR BAR pattern.
2. Connect an oscilloscope to pin ① of IC 301.
3. Adjust RV 331(R-Y) so that white and black parts of the waveform of pin ① becomes 0 lecel.
4. Connect an oscilloscope to pin ③ of IC 301.
5. Adjust L 331(B-Y) so that white and black parts of the waveform of pin ③ becomes 0 level.

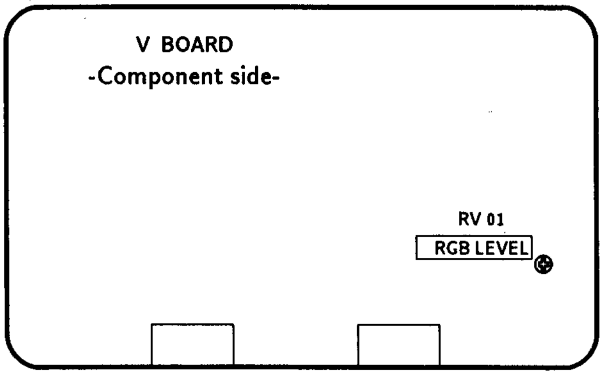

0 level
(white part)
(black part)
(white and black levels should become 0 level)
(Before Adjustment)
(After Adjustment)

CHARACTER POSITION Adjustment (RV 001)

1. Input PAL COLOR BAR pattern.
2. Adjust RV 001 to position the charcter display at the point indicated by the arrow below.


2
W
Y
C
G
M
R
B
BL

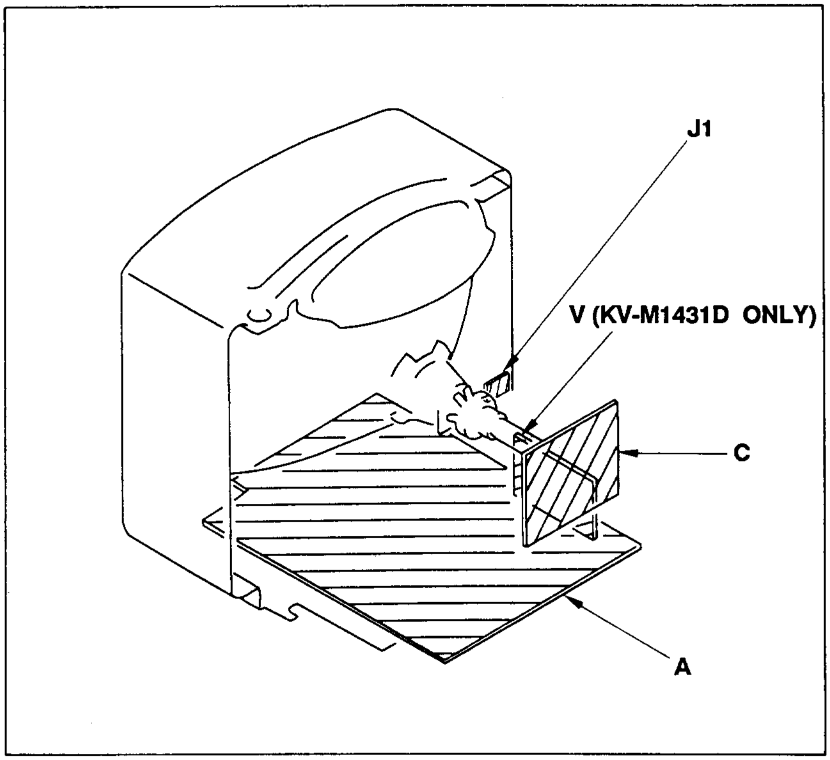
4-2. V BOARD ADJUSTMENT (KV-M1431D Only)


V BOARD
-Component side-
RV 01
RGB LEVEL

RGB LEVEL Adjustment (RV 01)

1. Set PICTURE to maximum.
2. Adjust RV01 till the RGB output becomes maximum.

5-1. CIRCUIT BOARDS LOCATION



5-2. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytic and tantalums.
- All resistors are in ohms.
  kΩ =1000Ω , MΩ =1000KΩ
- Indication of resistance, which does not have one for rating electrical power, is as follows.

  Pitch: 5 mm
  Rating electrical power ¼ W

- ─▭─ : nonflammable resistor.
- △ : internal component.
- ▭ : panel designation, or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- ⊥ : earth-ground.
- ⏚ : earth-chassis.
- ⧺ : no mounted.

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

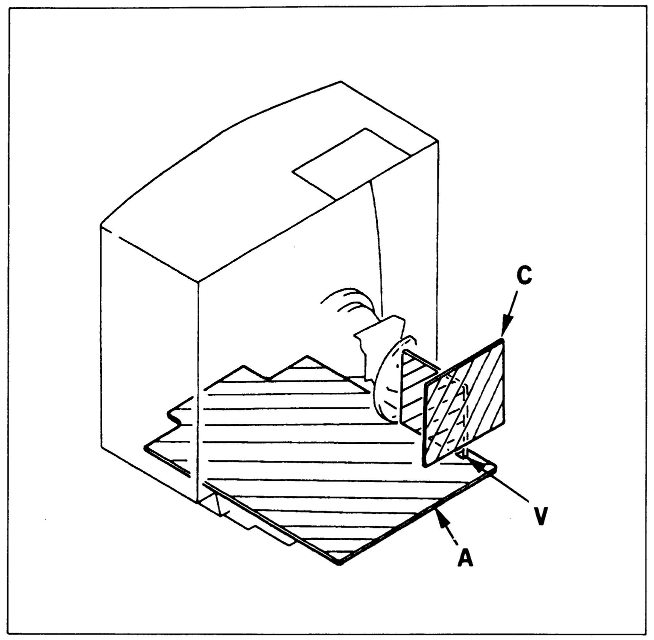
Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: RW	NONFLAMMABLE WIREWOUND
	: ※	ADJUSTMENT RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

- Readings are taken with a color-bar signal input.
- Readings are taken with a 10MΩ digital multimeter.
- Voltage are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- All voltages are in V.
- Circled numbers are waveform references.
- ━━ : B+ bus.
- ▨ : signal path. (RF)

SECTION 5
DIAGRAMS

5-1. CIRCUIT BOARDS LOCATION



Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE WIREWOUND
	: RB	NONFLAMMABLE CEMENT
	: *	ADJUSTMENT RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATUNE
	: ALR	HIGH RIPPLE

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note:

- All capacitors are in μF unless otherwise noted. pF : μμF 50WV or less are not indicated except for electrolytics.
- Indication of resistance, which does not have one for rating electrical power is as follows.

Pitch	: 5mm
Rating electrical power	: 1/4W

- Chip resistor is in 1/10W.
- All resistors are in ohms. kΩ: 1000Ω, MΩ: 1000kΩ.
- —▭— : nonflammable resistor.
- —∿— : fusible resistor.
- ▭ : panel designation and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- All voltage are in V.
- Readings are taken with a 10MΩ digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
- ━━ : B+ bus.
- : Signal path. (RF)

5-2. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

—A Board—

IC	
IC001	C-9
IC002	D-9
IC003	D-10
IC004	E-9
IC005	B-8
IC102	B-5
IC201	F-8
IC301	D-5
IC302	B-7
IC331	C-6
IC501	D-2
IC502	C-3
IC601	G-5
IC801	E-3
IC802	E-4

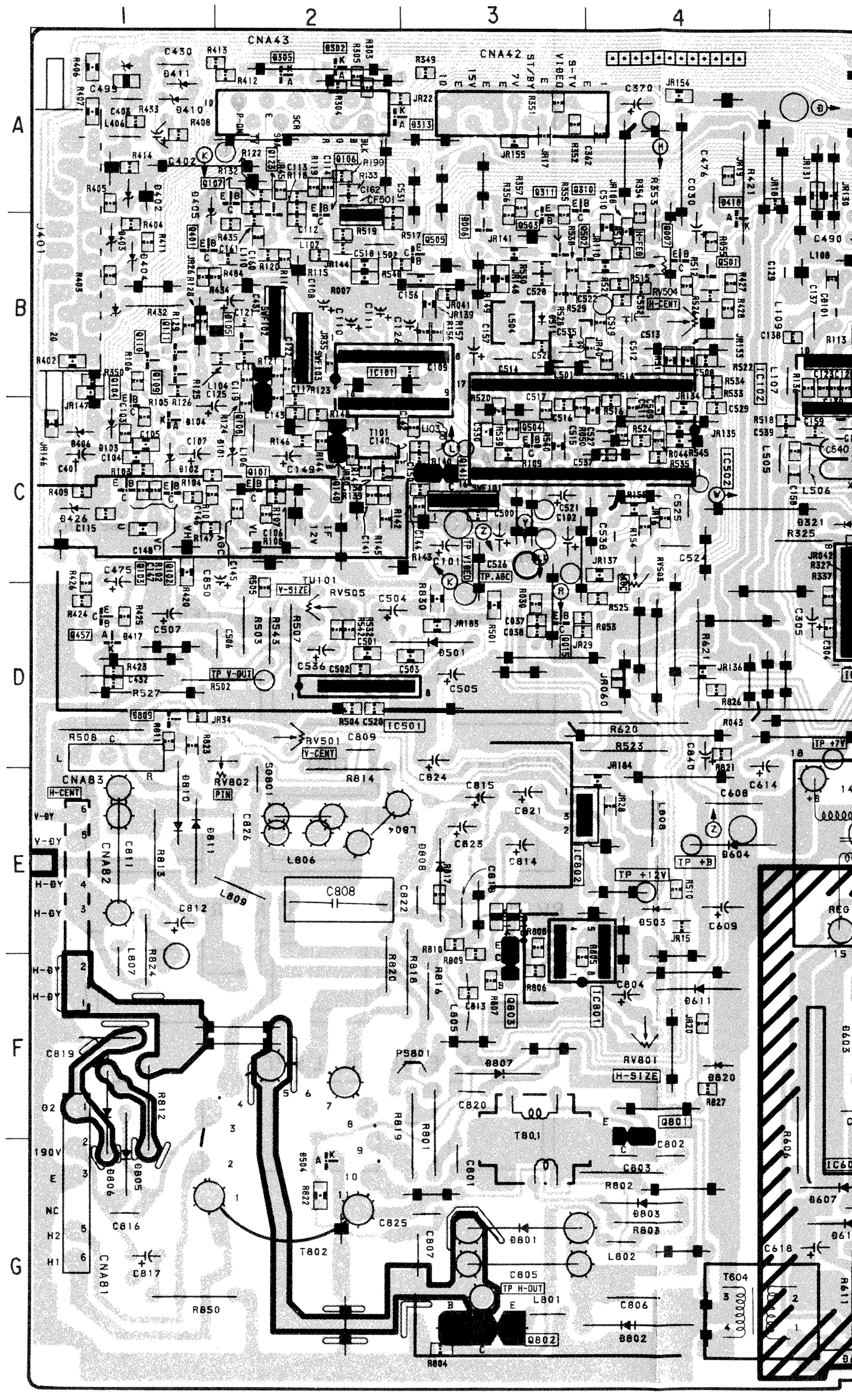
TRANSISTOR	
Q001	D-8
Q003	D-9
Q004	D-10
Q005	B-8
Q006	C-8
Q007	B-4
Q015	D-3
Q016	D-10
Q017	E-9
Q019	D-10
Q020	D-8
Q101	C-2
Q102	C-1
Q103	C-1
Q104	B-1
Q106	A-2
Q107	A-2
Q112	A-7
Q114	B-5
Q115	A-6
Q141	C-3
Q302	C-7
Q303	B-7
Q304	B-6
Q305	B-6
Q307	B-6
Q310	A-3
Q311	A-3
Q401	B-1
Q457	D-1
Q504	C-3
Q505	B-3
Q601	G-5
Q801	F-4
Q802	G-3
Q803	E-3

DIODE	
D002	E-10
D004	C-9
D007	B-8
D008	D-10
D009	B-8
D020	B-8
D101	C-2
D102	C-1
D103	C-1
D104	C-1
D110	C-5
D301	C-6
D302	A-2
D303	B-6
D305	A-2
D306	B-6
D313	A-3
D321	C-5
D324	A-7
D333	D-7
D402	A-1
D403	B-1
D404	B-1
D405	A-1
D406	C-1
D410	A-1
D411	A-1
D417	D-1
D418	A-4
D426	C-1
D501	D-3
D503	E-4
D504	G-2
D519	C-8
D601	F-7
D602	F-6
D603	F-5
D604	E-4
D605	E-6
D606	D-5
D607	G-5
D608	G-5
D609	G-5
D610	G-5
D611	F-4
D801	G-3
D802	G-4
D803	G-4
D805	G-1
D806	F-1
D807	F-3
D808	E-3
D810	E-1
D811	E-1
D820	F-4

VARIABLE RESISTOR	
RV001	D-9
RV331	C-6
RV501	D-2
RV502	B-4
RV503	C-4
RV504	B-4
RV505	D-2
RV801	F-4

TRIMMER	
CT332	C-7

— A Board —

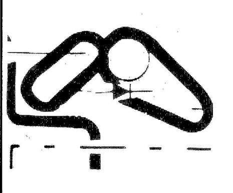


ON
BLE
WOUNO
NT
R

R
YLENE

[SYSTEM CONTROL, A/V OUT, H/V OUT, MEMORY, CHROMA] **A** **A**

5-2. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS



NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

—A Board—

IC	
IC001	C-9
IC002	D-9
IC003	D-10
IC004	E-9
IC005	B-8
IC102	B-5
IC201	F-8
IC301	D-5
IC302	B-7
IC331	C-6
IC501	D-2
IC502	C-3
IC601	G-5
IC801	E-3
IC802	E-4

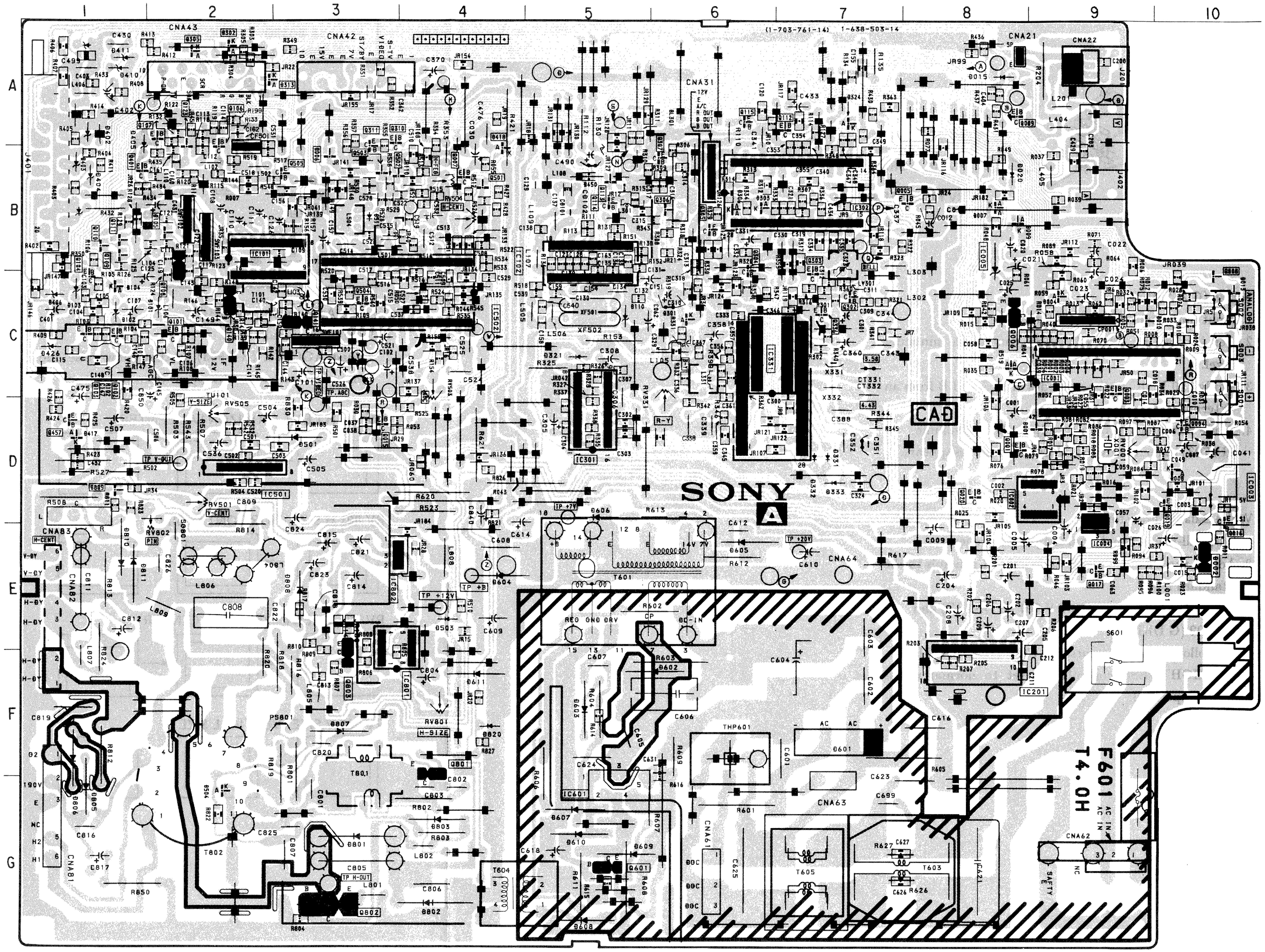
TRANSISTOR	
Q001	D-8
Q003	D-9
Q004	D-10
Q005	B-8
Q006	C-8
Q007	B-4
Q015	D-3
Q016	D-10
Q017	E-9
Q019	D-10
Q020	D-8
Q101	C-2
Q102	C-1
Q103	C-1
Q104	B-1
Q106	A-2
Q107	A-2
Q112	A-7
Q114	B-5
Q115	A-6
Q141	C-3
Q302	C-7
Q303	B-7
Q304	B-6
Q305	B-6
Q307	B-6
Q310	A-3
Q311	A-3
Q401	B-1
Q457	D-1
Q504	C-3
Q505	B-3
Q601	G-5
Q801	F-4
Q802	G-3
Q803	E-3

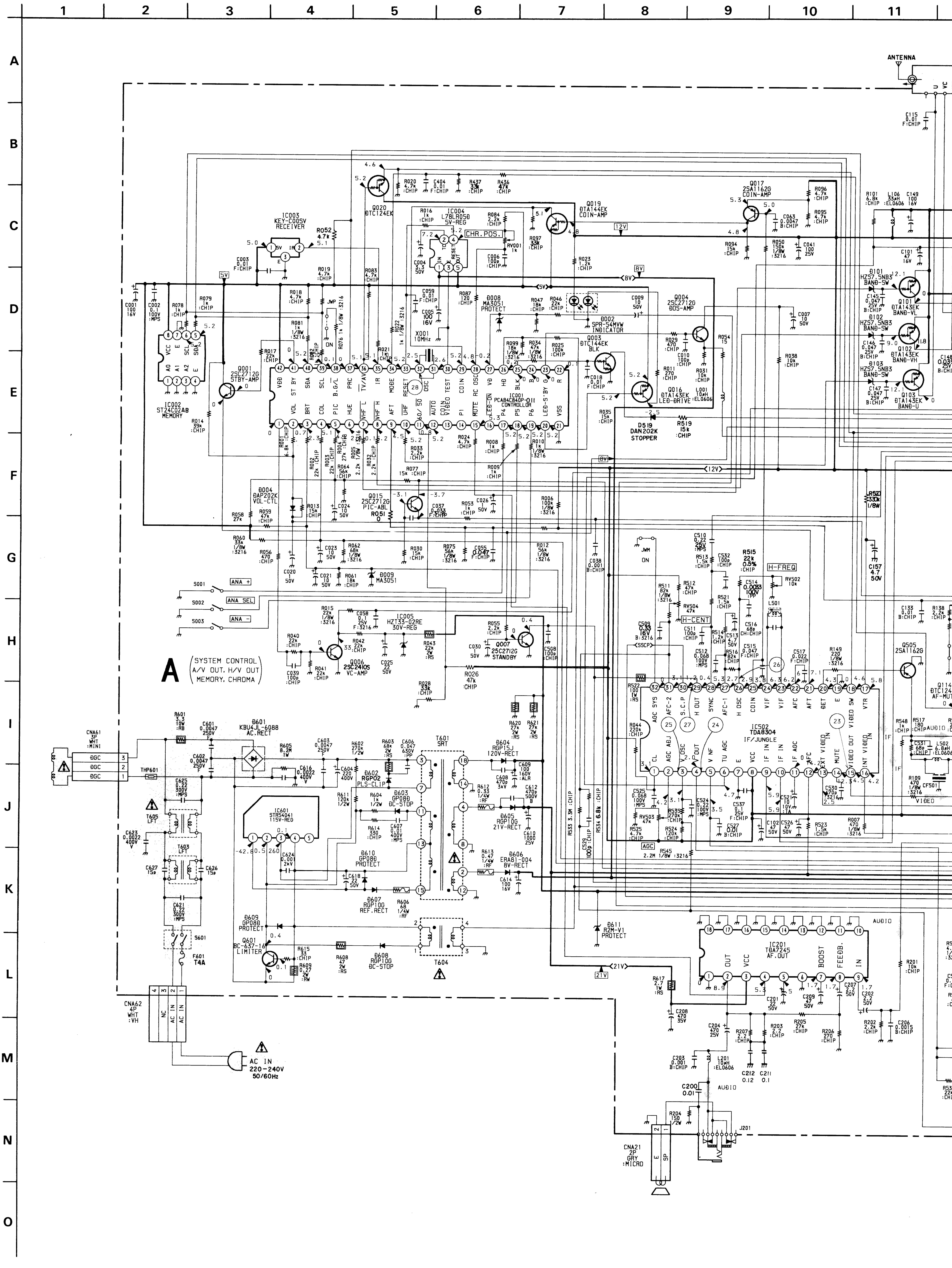
DIODE	
D002	E-10
D004	C-9
D007	B-8
D008	D-10
D009	B-8
D020	B-8
D101	C-2
D102	C-1
D103	C-1
D104	C-1
D110	C-5
D301	C-6
D302	A-2
D303	B-6
D305	A-2
D306	B-6
D313	A-3
D321	C-5
D324	A-7
D333	D-7
D402	A-1
D403	B-1
D404	B-1
D405	A-1
D406	C-1
D410	A-1
D411	A-1
D417	D-1
D418	A-4
D426	C-1
D501	D-3
D503	E-4
D504	G-2
D519	C-8
D601	F-7
D602	F-6
D603	F-5
D604	E-4
D605	E-6
D606	D-5
D607	G-5
D608	G-5
D609	G-5
D610	G-5
D611	F-4
D801	G-3
D802	G-4
D803	G-4
D805	G-1
D806	F-1
D807	F-3
D808	E-3
D810	E-1
D811	E-1
D820	F-4

VARIABLE RESISTOR	
RV001	D-9
RV331	C-6
RV501	D-2
RV502	B-4
RV503	C-4
RV504	B-4
RV505	D-2
RV801	F-4

TRIMMER	
CT332	C-7

— A Board —


1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
F
G
(1-703-761-14) 1-638-503-14
SONY
A
CAD
CNA43
CNA42
CNA31
CNA21
CNA22
CNA83
CNA82
CNA81
CNA64
CNA63
CNA61
CNA62
J401
S601
T601
T604
T605
T603
T801
T802
THP601
F601
T4.0H
AC IN
SAFETY
TP V-OUT
TP +12V
TP +20V
TP H-OUT
TP ABC
H-CENT
V-CENT
V-SIZE
H-SIZE
PIN
R-Y
ANALOG
IC001
IC002
IC003
IC004
IC005
IC102
IC201
IC301
IC302
IC331
IC501
IC502
IC601
IC801
IC802


1
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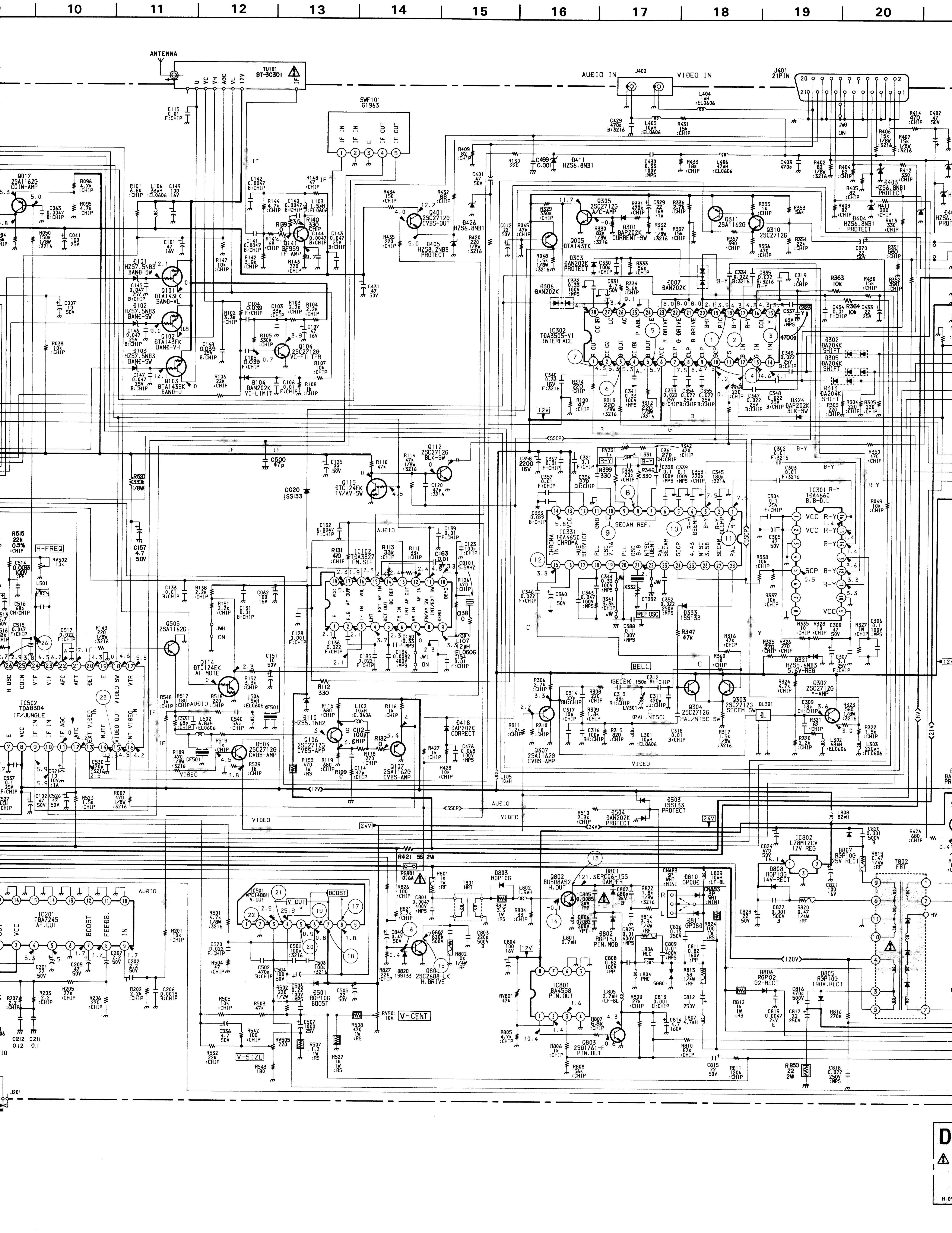
9
10
11
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
A
SYSTEM CONTROL
A/V OUT. H/V OUT
MEMORY. CHROMA
ANTENNA
IC001 PCA84C840P-011 CONTROLLER
IC002 ST24C02AB MEMORY
IC003 KEY-C005V RECEIVER
IC004 L78LR050 5V-REG
IC005 HZT33-02RE 30V-REG
Q001 2SC2712G STBY-AMP
Q003 DTC144EK BLK
Q004 2SC2712G OOS-AMP
Q006 2SC2410S VC-AMP
Q007 2SC2712G STANDBY
Q015 2SC2712G PIC-ABL
Q016 DTA143EK LED-DRIVE
Q017 2SA1162G COIN-AMP
Q019 DTA144EK COIN-AMP
Q020 DTC124EK
D002 SPR-54MVW INDICATOR
D004 DAP202K VOL-CTL
D008 MA3051 PROTECT
D009 MA3051
D519 DAN202K STOPPER
X001 10MHz
CHR. POS.
RV001 1k
D101 HZS7.5NB3 BAND-SW
D102 HZS7.5NB3 BAND-SW
D103 HZS7.5NB3 BAND-SW
Q101 DTA143EK BAND-VL
Q102 DTA143EK BAND-VH
Q103 DTA143EK BAND-U
S001 ANA +
S002 ANA SEL
S003 ANA -
CNA61 3P WHT :MINI
DGC
THP601
T605 LFT
T603 LFT
S601
F601 T4A
CNA62 4P WHT :VH
NC
AC IN
AC IN 220-240V 50/60Hz
D601 KBU4JL-6088 AC.RECT
IC601 STR54041 115V-REG
T601 SRT
D602 RGP02 PLS-CLIP
D603 GP08D DC-STOP
D604 RGP15J 120V-RECT
D605 RGP10G 21V-RECT
D606 ERA81-004 8V-RECT
D607 RGP10G REF.RECT
D608 RGP10G DC-STOP
D609 GP08D PROTECT
D610 GP08D PROTECT
D611 RZM-V1 PROTECT
Q601 BC-637-16 LIMITER
T604
IC502 TDA8304 IF/JUNGLE
H-FREQ
H-CENT
JWM ON
AGC
Q505 2SA1162G
IC201 TDA7245 AF.OUT
OUT
VCC
BOOST
FEEDB.
IN
AUDIO
CNA21 2P GRY :MICRO
E
SP
J201
5V
8V
12V
21V


10
11
12
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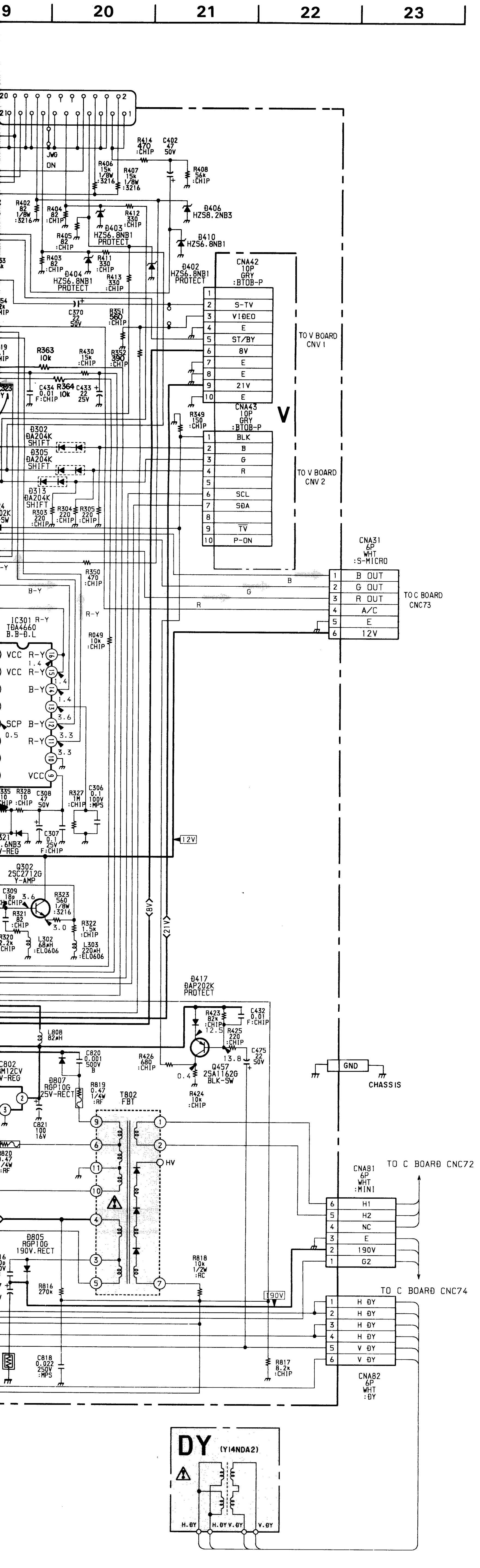
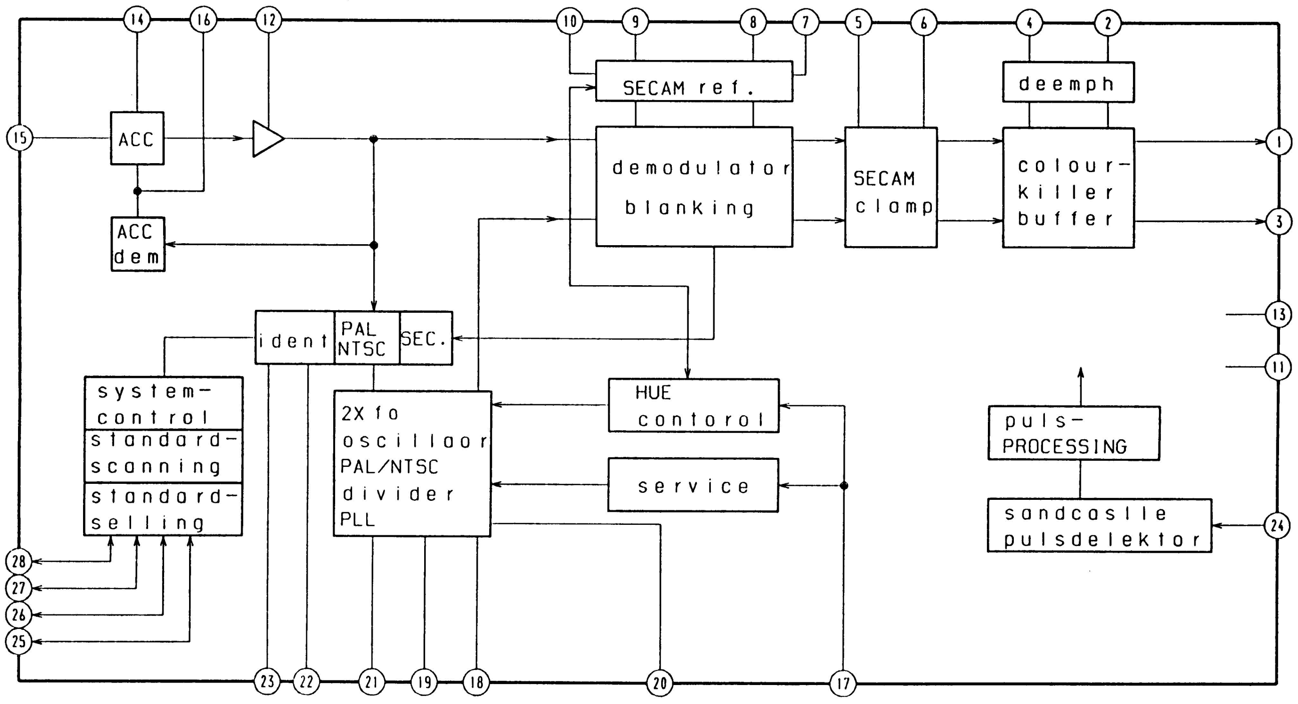
14
15
16
17
18
19
20
ANTENNA
TU101
BT-3C301
U VC VH AGC VL 12V IF
SWF101
G1963
IF IN IF IN E IF OUT IF OUT
AUDIO IN
J402
VIDEO IN
J401
21PIN
Q017 2SA1162G COIN-AMP
Q101 DTA143EK BAND-VL
Q102 DTA143EK BAND-VH
Q103 DTA143EK BAND-U
D101 HZS7.5NB3 BAND-SW
D102 HZS7.5NB3 BAND-SW
D103 HZS7.5NB3 BAND-SW
Q141 BF959 IF-AMP
Q104 2SC2712G VC-FILTER
D104 DAN202K VC-LIMIT
Q401 2SC2712G CVBS-OUT
D405 HZS8.2NB3 PROTECT
D426 HZS6.8NB1
D411 HZS6.8NB1
Q005 DTA143TK
Q305 2SC2712G A/C-AMP
D301 DAP202K CURRENT-SW
D303 DAN202K PROTECT
D306 DAN202K
D007 DAN202K
Q311 2SA1162G
Q310 2SC2712G
IC302 TDA3505-V1 INTERFACE
D302 DA204K SHIFT
D305 DA204K SHIFT
D313 DA204K SHIFT
D324 DAP202K BLK-SW
D403 HZS6.8NB1 PROTECT
D404 HZS6.8NB1 PROTECT
Q112 2SC2712G BLK-SW
Q115 DTC124EK TV/AV-SW
D020 1SS133
IC102 TDA3827 FM.SIF
IC331 TDA4650 CHROMA
SECAM REF.
REF OSC
D333 1SS133
IC301 TDA4660 B.B-D.L
BELL
Q304 2SC2712G PAL/NTSC SW
Q303 2SC2712G SECEM SW
Q302 2SC2712G Y-AMP
D321 HZS5.6NB3 5.6V-REG
Q307 2SA1162G CVBS-AMP
IC502 TDA8304 IF/JUNGLE
H-FREQ
Q505 2SA1162G
Q114 DTC124EK AF-MUTE
Q504 2SC2712G CVBS-AMP
D110 HZS5.1NB2
Q106 2SC2712G CVBS-AMP
Q107 2SA1162G CVBS-AMP
D418 DAP202K CORRECT
D503 1SS133 PROTECT
D504 DAN202K PROTECT
IC802 L78M12CV 12V-REG
D807 RGP10G 25V-RECT
D808 RGP10G 14V-RECT
T802 FBT
HV
IC201 TDA7245 AF.OUT
IC501 μPC1488H V.OUT
BOOST
V OUT
D501 RGP10G BOOST
V-CENT
V-SIZE
R421 56 2W
PS801 0.6A
D820 1SS133
Q801 2SC2688-LK H.DRIVE
T801 HDT
D803 RGP10G
Q802 BU508AS2 H.OUT
D801 ERC06-15S DAMPER
D802 RGP15J PIN.MOD
CNA83 3P WHT MINI
D810 GP08D
D811 GP08D
IC801 BA4558 PIN.OUT
Q803 2SD1761-E PIN.OUT
D806 RGP02 G2-RECT
D805 RGP10G 190V.RECT
R850 22 2W
12V
24V
120V
SSCP
AUDIO
VIDEO
IF
J201



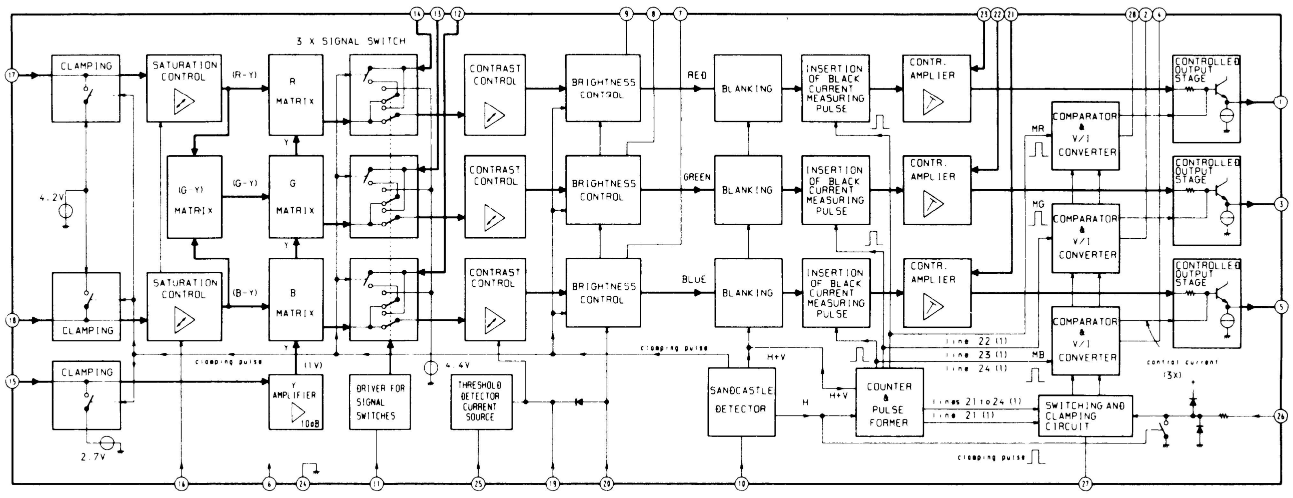
20
21
22
23
CNA42 10P GRY :BTOB-P
S-TV
VIDEO
E
ST/BY
8V
E
E
21V
E
TO V BOARD CNV 1
CNA43 10P GRY :BTOB-P
BLK
B
G
R
SCL
SDA
TV
P-ON
TO V BOARD CNV 2
V
CNA31 6P WHT :S-MICRO
B OUT
G OUT
R OUT
A/C
E
12V
TO C BOARD CNC73
IC301 R-Y TDA4660 B.B-D.L
Q302 2SC2712G Y-AMP
Ð417 ÐAP202K PROTECT
Q457 2SA1162G BLK-SW
T802 FBT
HV
GND
CHASSIS
CNA81 6P WHT :MINI
H1
H2
NC
E
190V
G2
TO C BOARD CNC72
TO C BOARD CNC74
H ÐY
H ÐY
H ÐY
H ÐY
V ÐY
V ÐY
CNA82 6P WHT :ÐY
DY (Y14NDA2)
H.ÐY
H.ÐY V.ÐY
V.ÐY
12V
190V

A BOARD IC331 TDA4650/V4



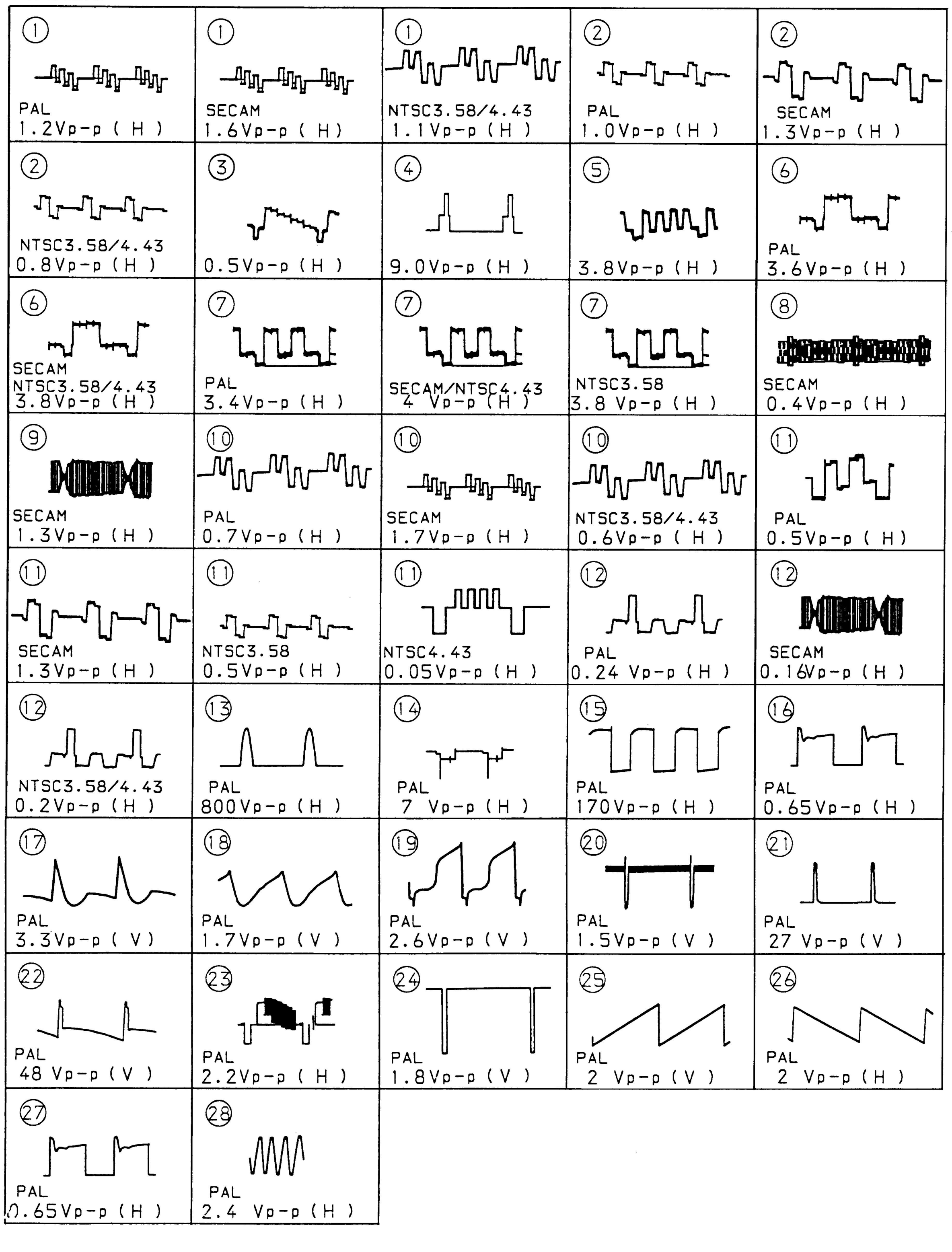
ACC
ACC dem
SECAM ref.
demodulator blanking
SECAM clamp
deemph
colour-killer buffer
ident
PAL NTSC
SEC.
system-control
standard-scanning
standard-selling
2X fo oscillaor PAL/NTSC divider PLL
HUE contorol
service
puls-PROCESSING
sandcastle pulsdelektor

A BOARD IC302 TDA3505-V9



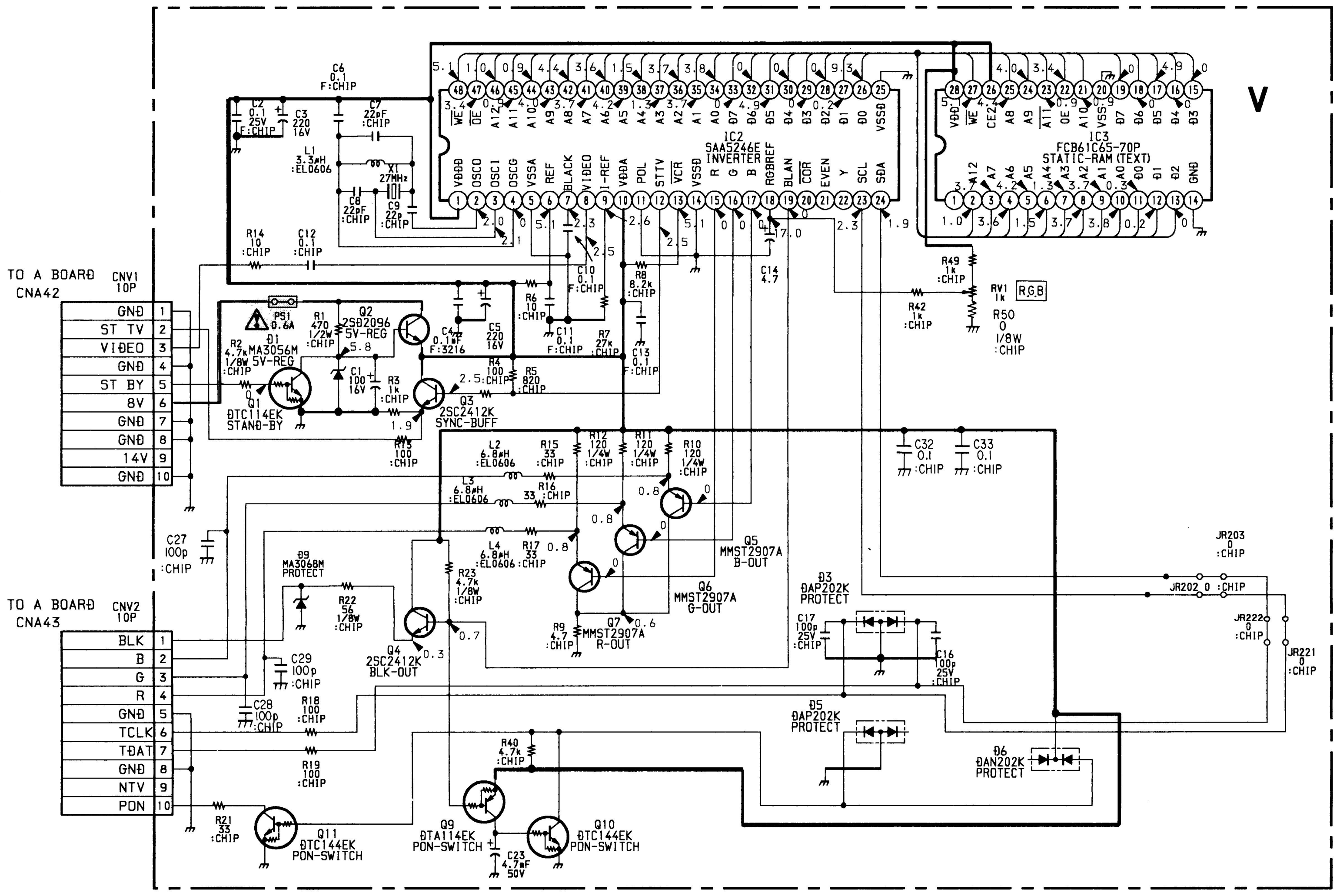
3 X SIGNAL SWITCH
CLAMPING
SATURATION CONTROL
R MATRIX
(G-Y) MATRIX
G MATRIX
B MATRIX
CONTRAST CONTROL
BRIGHTNESS CONTROL
RED
GREEN
BLUE
BLANKING
INSERTION OF BLACK CURRENT MEASURING PULSE
CONTR. AMPLIFIER
COMPARATOR & V/I CONVERTER
CONTROLLED OUTPUT STAGE
Y AMPLIFIER
DRIVER FOR SIGNAL SWITCHES
THRESHOLD DETECTOR CURRENT SOURCE
SANDCASTLE DETECTOR
COUNTER & PULSE FORMER
SWITCHING AND CLAMPING CIRCUIT
4.2V
2.7V
4.4V

• A Board



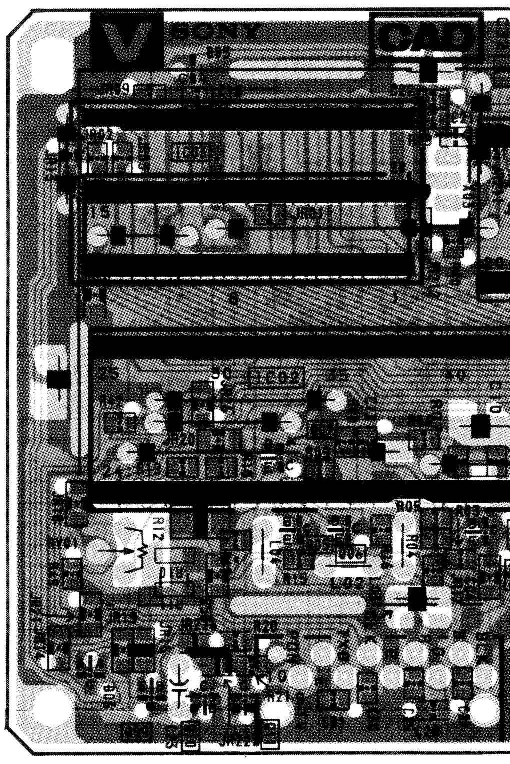
① PAL 1.2Vp-p (H)
① SECAM 1.6Vp-p (H)
① NTSC3.58/4.43 1.1Vp-p (H)
② PAL 1.0Vp-p (H)
② SECAM 1.3Vp-p (H)
② NTSC3.58/4.43 0.8Vp-p (H)
③ 0.5Vp-p (H)
④ 9.0Vp-p (H)
⑤ 3.8Vp-p (H)
⑥ PAL 3.6Vp-p (H)
⑥ SECAM NTSC3.58/4.43 3.8Vp-p (H)
⑦ PAL 3.4Vp-p (H)
⑦ SECAM/NTSC4.43 4 Vp-p (H)
⑦ NTSC3.58 3.8 Vp-p (H)
⑧ SECAM 0.4Vp-p (H)
⑨ SECAM 1.3Vp-p (H)
⑩ PAL 0.7Vp-p (H)
⑩ SECAM 1.7Vp-p (H)
⑩ NTSC3.58/4.43 0.6Vp-p (H)
⑪ PAL 0.5Vp-p (H)
⑪ SECAM 1.3Vp-p (H)
⑪ NTSC3.58 0.5Vp-p (H)
⑪ NTSC4.43 0.05Vp-p (H)
⑫ PAL 0.24 Vp-p (H)
⑫ SECAM 0.16Vp-p (H)
⑫ NTSC3.58/4.43 0.2Vp-p (H)
⑬ PAL 800Vp-p (H)
⑭ PAL 7 Vp-p (H)
⑮ PAL 170Vp-p (H)
⑯ PAL 0.65Vp-p (H)
⑰ PAL 3.3Vp-p (V)
⑱ PAL 1.7Vp-p (V)
⑲ PAL 2.6Vp-p (V)
⑳ PAL 1.5Vp-p (V)
㉑ PAL 27 Vp-p (V)
㉒ PAL 48 Vp-p (V)
㉓ PAL 2.2Vp-p (H)
㉔ PAL 1.8Vp-p (V)
㉕ PAL 2 Vp-p (V)
㉖ PAL 2 Vp-p (H)
㉗ PAL 0.65Vp-p (H)
㉘ PAL 2.4 Vp-p (H)

1 2 3 4 5 6 7 8 9 [R. G. B OUT] **C** [TEXT] **V**

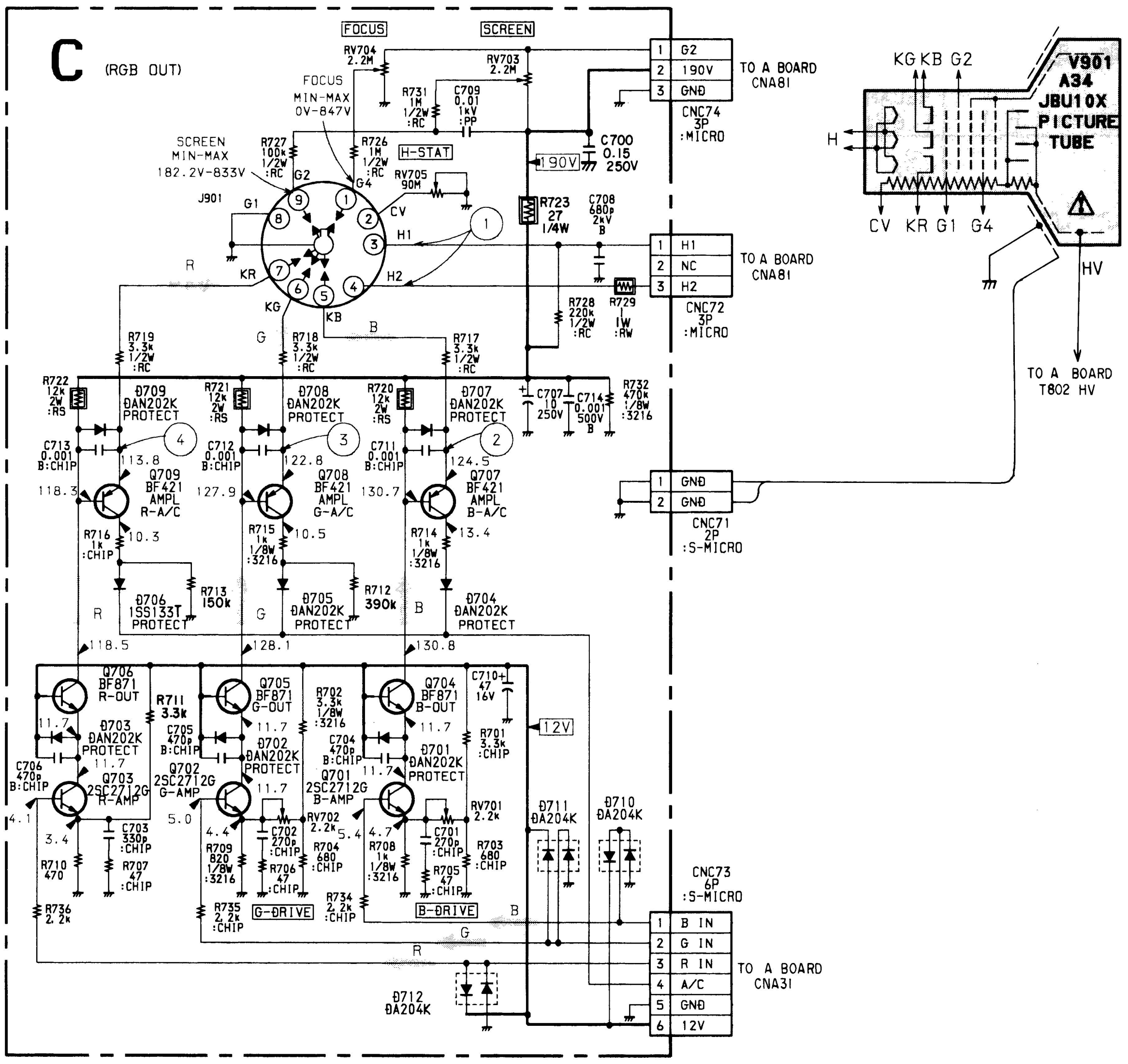

V
TO A BOARD CNA42
CNV1 10P
GND
ST TV
VIDEO
GND
ST BY
8V
GND
GND
14V
GND
TO A BOARD CNA43
CNV2 10P
BLK
B
G
R
GND
TCLK
TDAT
GND
NTV
PON
IC2 SAA5246E INVERTER
IC3 FCB61C65-70P STATIC-RAM (TEXT)
Q1 DTC114EK STAND-BY
Q2 2SD2096 5V-REG
Q3 2SC2412K SYNC-BUFF
Q4 2SC2412K BLK-OUT
Q5 MMST2907A B-OUT
Q6 MMST2907A G-OUT
Q7 MMST2907A R-OUT
Q9 DTA114EK PON-SWITCH
Q10 DTC144EK PON-SWITCH
Q11 DTC144EK PON-SWITCH
D1 MA3056M 5V-REG
D3 DAP202K PROTECT
D5 DAP202K PROTECT
D6 DAN202K PROTECT
D9 MA3068M PROTECT
PS1 0.6A
X1 27MHz
RV1 RGB
JR202 0 :CHIP
JR203 0 :CHIP
JR221 0 :CHIP
JR222 0 :CHIP

B-SS4050<AEP>-V..

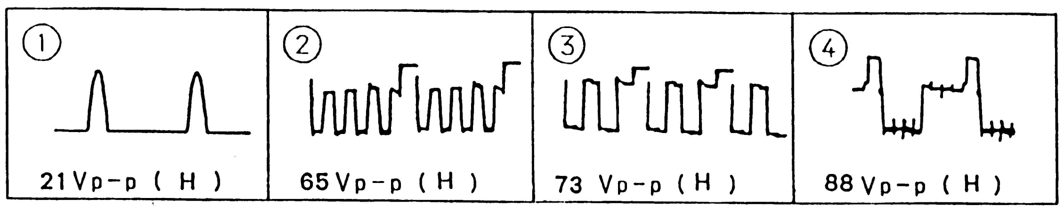
— V Board —


SONY
IC02
IC03

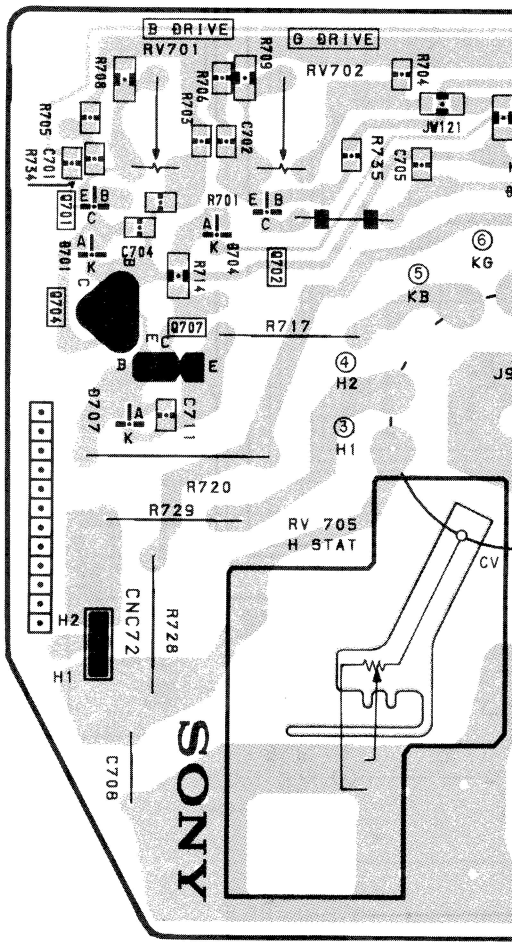
A B C D E F G H I J K L M N O


C (RGB OUT)
FOCUS
SCREEN
FOCUS MIN-MAX 0V-847V
SCREEN MIN-MAX 182.2V-833V
J901
G1
G2
G4
CV
H1
H2
KR
KG
KB
H-STAT
RV705 90M
RV704 2.2M
RV703 2.2M
C700 0.15 250V
190V
R723 27 1/4W
C708 680p 2kV
TO A BOARD CNA81
CNC74 3P :MICRO
CNC72 3P :MICRO
NC
CNC71 2P :S-MICRO
Q709 BF421 AMPL R-A/C
Q708 BF421 AMPL G-A/C
Q707 BF421 AMPL B-A/C
Q706 BF871 R-OUT
Q705 BF871 G-OUT
Q704 BF871 B-OUT
Q703 2SC2712G R-AMP
Q702 2SC2712G G-AMP
Q701 2SC2712G B-AMP
D709 DAN202K PROTECT
D708 DAN202K PROTECT
D707 DAN202K PROTECT
D706 1SS133T PROTECT
D705 DAN202K PROTECT
D704 DAN202K PROTECT
D703 DAN202K PROTECT
D702 DAN202K PROTECT
D701 DAN202K PROTECT
D711 DA204K
D710 DA204K
D712 DA204K
12V
G-DRIVE
B-DRIVE
CNC73 6P :S-MICRO
B IN
G IN
R IN
A/C
GND
12V
TO A BOARD CNA31
KG KB G2
V901 A34 JBU10X PICTURE TUBE
H
CV KR G1 G4
HV
TO A BOARD T802 HV

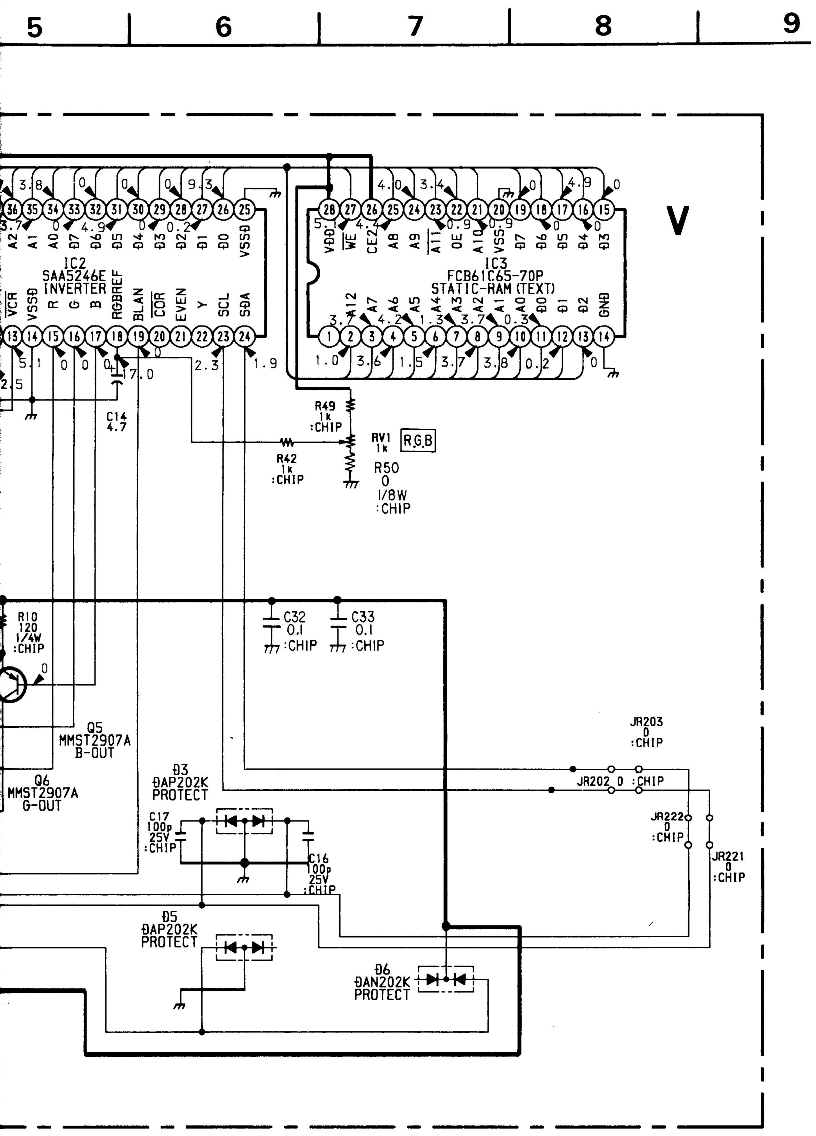
• C Board



— C Board —


B DRIVE
G DRIVE
RV701
RV702
RV 705 H STAT
CNC72
H1
H2
KG
KB
R720
R729
R717
R728
C708
SONY
CV

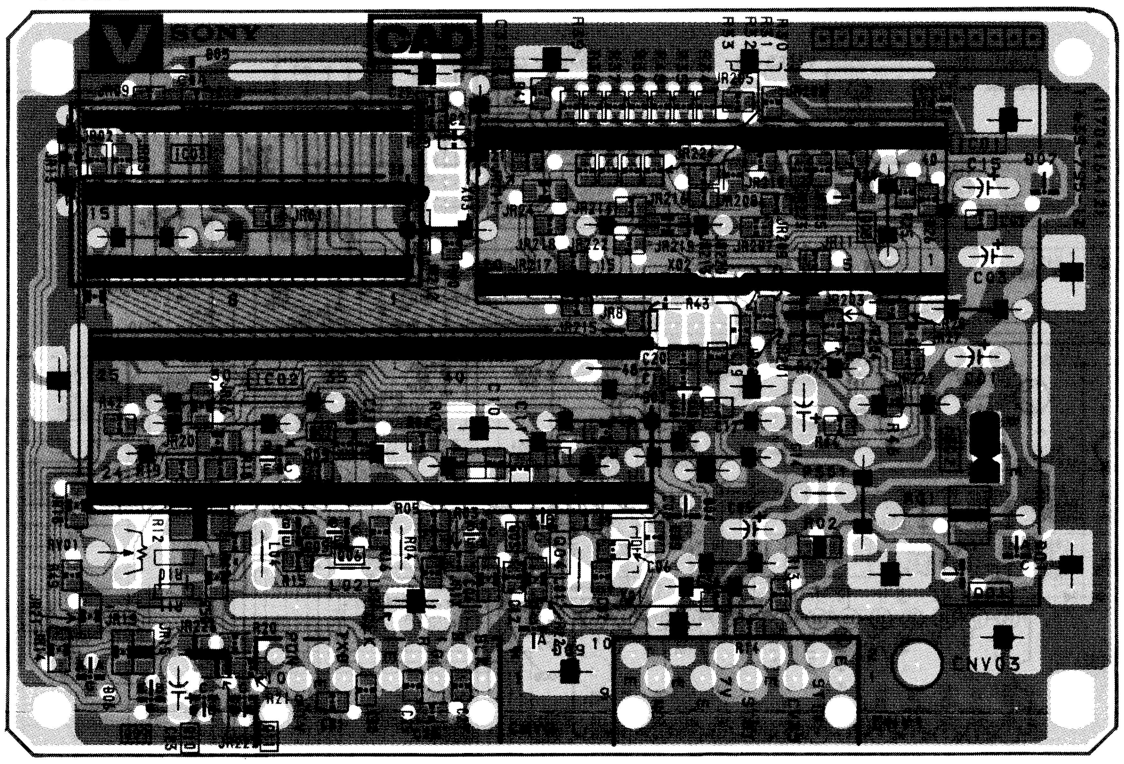
[R. G. B OUT] **C** **[TEXT]** **V**



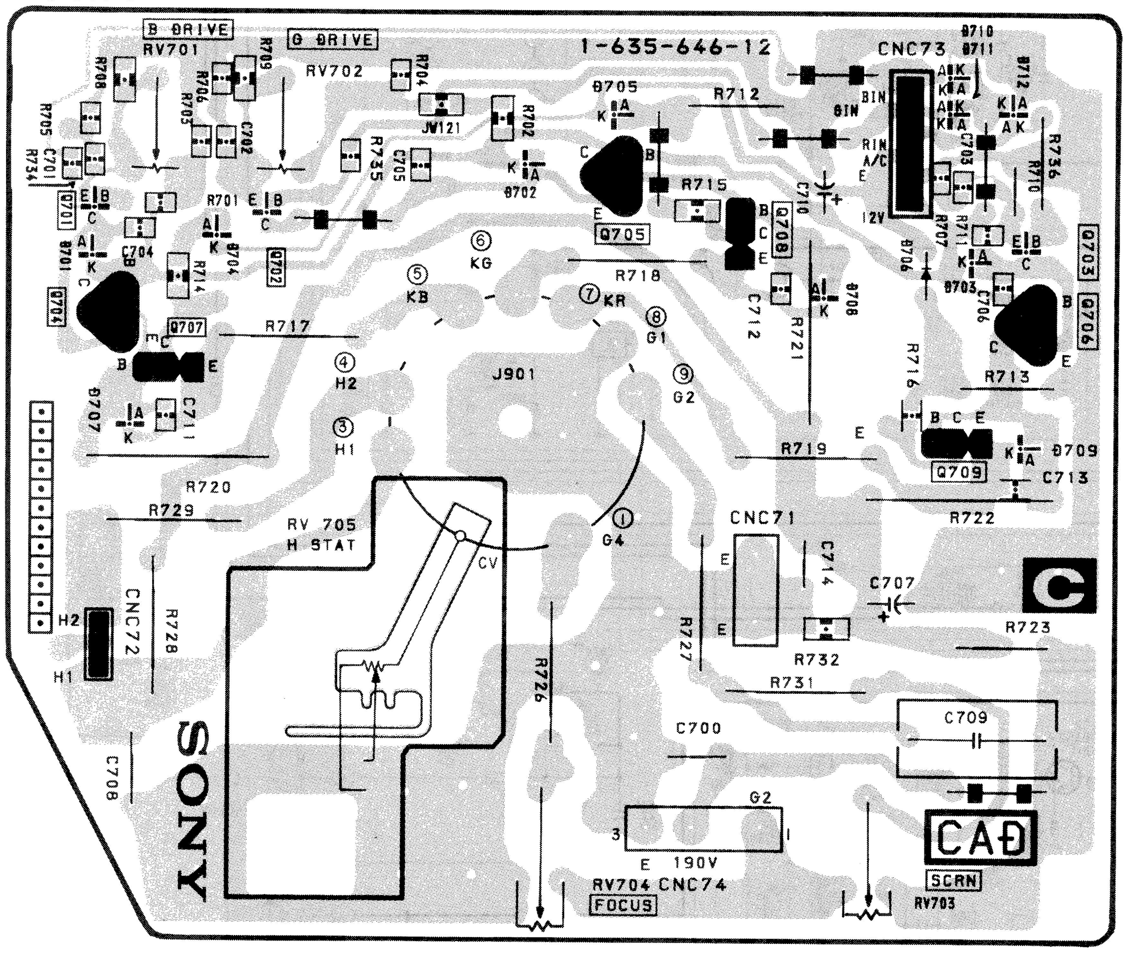
5
6
7
8
9
V
IC2
SAA5246E
INVERTER
IC3
FCB61C65-70P
STATIC-RAM (TEXT)
R49
1k
:CHIP
R42
1k
:CHIP
RV1
1k
RGB
R50
0
1/8W
:CHIP
C14
4.7
C32
0.1
:CHIP
C33
0.1
:CHIP
R10
120
1/4W
:CHIP
Q5
MMST2907A
B-OUT
Q6
MMST2907A
G-OUT
D3
DAP202K
PROTECT
C17
100p
25V
:CHIP
C16
100p
25V
:CHIP
D5
DAP202K
PROTECT
D6
DAN202K
PROTECT
JR203
0
:CHIP
JR202 0 :CHIP
JR222
0
:CHIP
JR221
0
:CHIP

B-SS4050<AEP>-V..

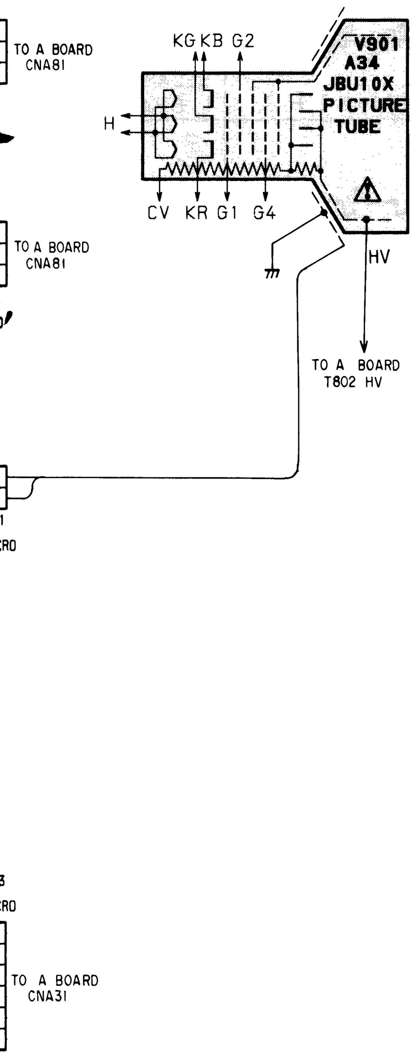
— V Board —



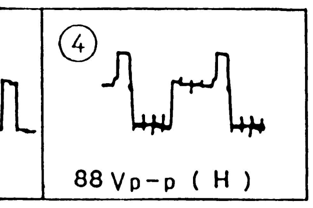
— C Board —



B DRIVE
RV701
G DRIVE
RV702
1-635-646-12
CNC73
Q705
Q708
Q703
Q706
Q701
Q702
Q704
Q707
Q709
J901
⑤ KB
⑥ KG
⑦ KR
⑧ G1
⑨ G2
④ H2
③ H1
① G4
RV 705
H STAT
CV
CNC71
CNC72
H2
H1
SONY
C
CAD
SCRN
RV703
G2
E 190V
RV704 CNC74
FOCUS
BIN
GIN
RIN
A/C
12V

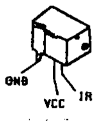


TO A BOARD
CNA81
KG KB G2
V901
A34
JBU10X
PICTURE
TUBE
H
CV KR G1 G4
TO A BOARD
CNA81
HV
TO A BOARD
T802 HV
TO A BOARD
CNA31



5-3. SEMICONDUCTORS

KEY-C00SV-F



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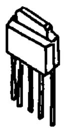

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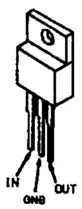

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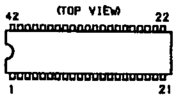
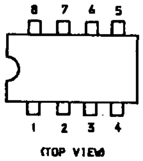
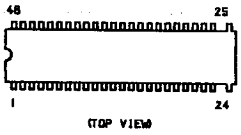

42
(TOP VIEW)
22
1
21

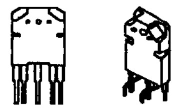
RC4558P
ST24C02CP


8 7 6 5
1 2 3 4
(TOP VIEW)

SAA5246P/E


48
25
1
24
(TOP VIEW)

STR54041



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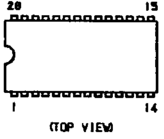
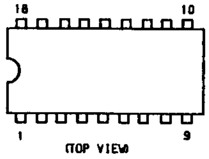
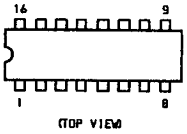
TDA4650-V4


28
15
1
14
(TOP VIEW)

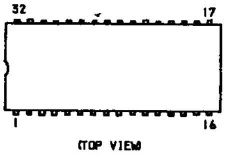
TDA3827-V3
TDA7245


18
10
1
9
(TOP VIEW)

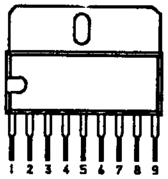
TDA4660V2


16
9
1
8
(TOP VIEW)

TDA8304


32
17
1
16
(TOP VIEW)

μPC1488H



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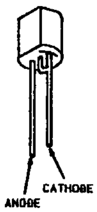
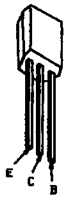

ANODE
CATHODE

BC637-16



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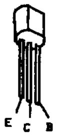

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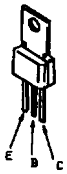
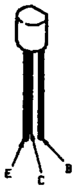
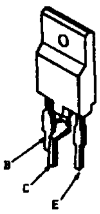


BF959



BU508AS2



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DTA143EK
DTA143TK
DTA144EK
DTC114EK
DTC124EK
DTC144EK
MMST2907A
2SA1037K
2SA1162G
2SB1295-UL6
2SC1623-L5L6
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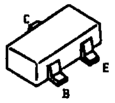
2SC2412K
2SC2712YG



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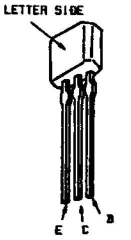
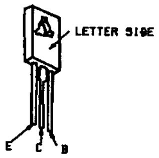
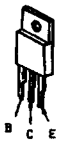

LETTER SIDE
E
C
B

2SC2688-LK


LETTER SIDE
E
C
B

2SD1408-Y



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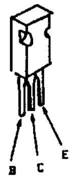
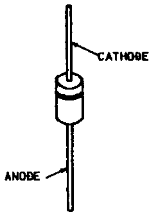
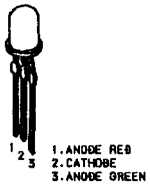


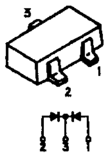
ERC06-15S
R2M


CATHODE
ANODE

SPR-54MVW


1
2
3
1. ANODE RED
2. CATHODE
3. ANODE GREEN

DAN202K
MA152WK



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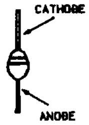
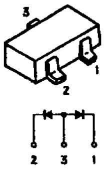
U05G


CATHODE
ANODE

DAP202K



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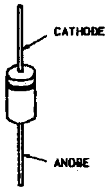
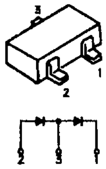

CATHODE
ANODE

DA204K
1SS226



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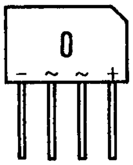
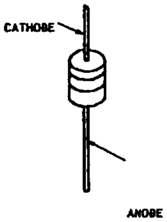
RBV-406H-01



ERA83-006
RD5.1ES-B2
RD5.6ES-B2
RD6.8ES-B2
RD8.2ES-B3
1SS119
1SS133


CATHODE
ANODE

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MA3056M
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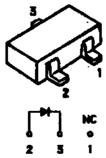
RD5.6M-B2
RD6.8M-B2



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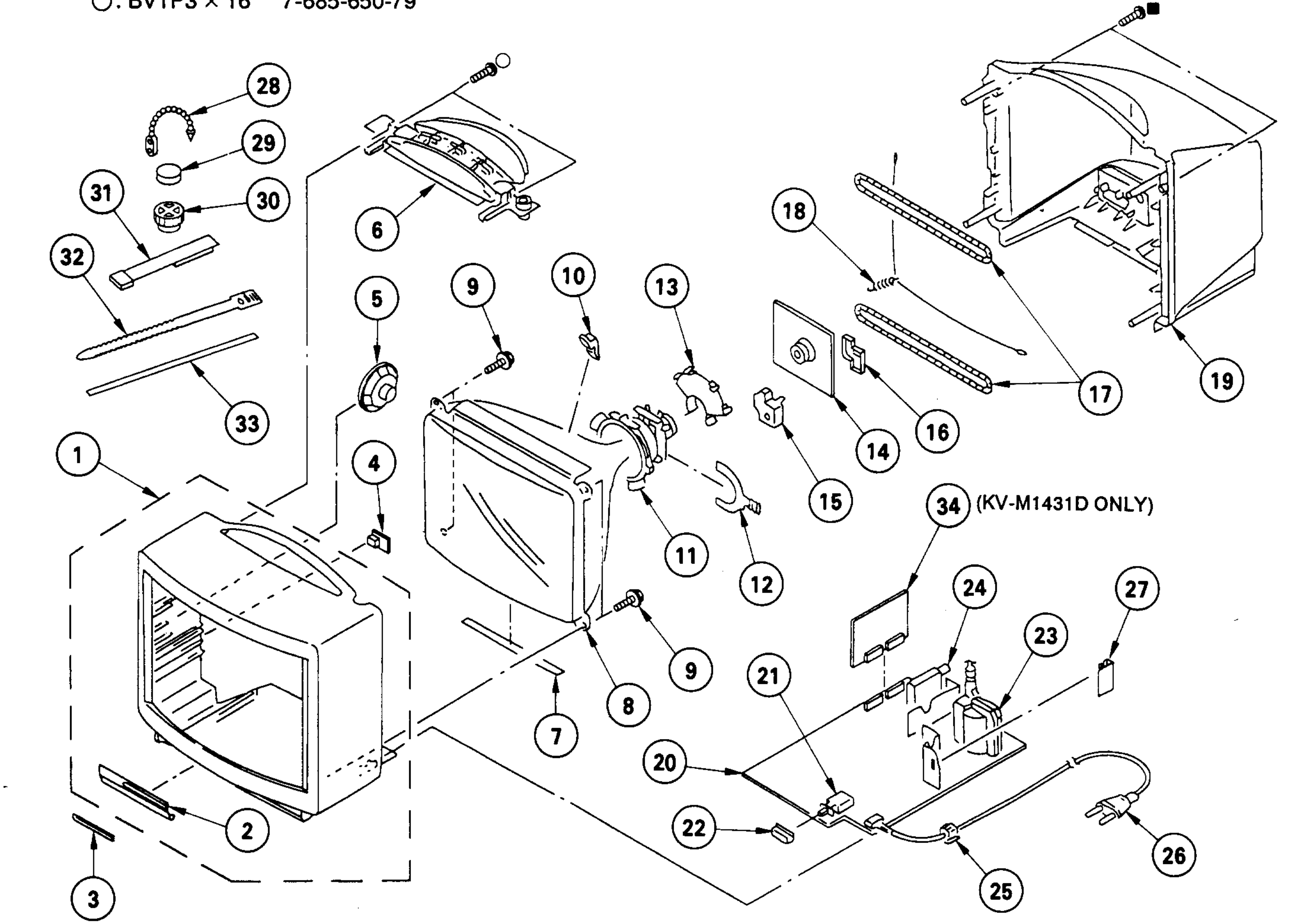
○: BVTP3 × 16   7-685-650-79


28
29
30
31
32
33
6
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9
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13
18
17
19
14
16
15
4
1
11
12
34 (KV-M1431D ONLY)
24
27
23
9
8
7
21
20
22
2
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25
26